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## **Gypsum Board Walls: Transmission Loss Data**

**Halliwell, R.E.; Nightingale, T.R.T.; Warnock,  
A.C.C.; Birta, J.A.**

**IRC-IR-761**

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by R.E. Halliwell, T.R.T. Nightingale, A.C.C. Warnock, J.A. Birta

Internal Report IRC-IR-761

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Gypsum Manufacturers of Canada  
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Roxul Inc.

## **GYPSUM BOARD WALLS: TRANSMISSION LOSS DATA**

By R.E. Halliwell, T.R.T. Nightingale, A.C.C. Warnock, J.A. Birta

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## INTRODUCTION

In 1995 the IRC Acoustics Laboratory completed a study of sound transmission through gypsum board walls. The results were reported in IRC-IR-693, *Summary Report for Consortium on Gypsum Board Walls: Sound Transmission Results* but provided only STC ratings.

The project was supported by a consortium including Canada Mortgage and Housing Corporation, Canadian Sheet Steel Building Institute, Cellulose Insulation Manufacturers Association of Canada, Forintek Canada, Gypsum Manufacturers of Canada, the Institute for Research in Construction of the National Research Council Canada, Owens Corning Fiberglas Canada Inc., and Roxul Inc.

This report represents an extension of IRC-IR-693 by providing detailed one-third octave band transmission loss data, physical specifications of the materials used, and construction details for each wall tested. Besides the 285 walls reported in IRC-IR-693, an additional 65 measurements have been included.

Although some of the specimens were chosen by individual clients to demonstrate the performance of specific products, these were combined with a structured series established collectively by the consortium. The combined set of 350 specimens provides the basis for a broad general evaluation of sound transmission through gypsum board wall systems.

## **MEASUREMENT PROCESS**

The acoustical measurements were made in the suite of reverberation chambers in building M-27 of the Institute for Research in Construction of the National Research Council Canada (IRC/NRCC). Wall specimens were mounted in a removable test frame between the two chambers, without rigid contact to either reverberation chamber. The wall test opening measured 3.05 m x 2.44 m. The volume of the source room was 65 m<sup>3</sup>. The volume of the adjacent receiving room was 250 m<sup>3</sup>. Both reverberation chambers were supported on spring vibration isolators. In addition to fixed diffuser panels in both rooms, the large room also had a rotating diffuser panel. Test signals were supplied to each room by four loudspeakers with independent sound sources. Each room had a calibrated condenser microphone (B&K Type 4166, 12.5 mm diameter) positioned by a computer-controlled robot arm.

Tests were conducted in accordance with the requirements of ASTM E90-1990, Standard Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions, and of ISO 140/III 1978(E), Laboratory Measurement of Airborne Sound Insulation of Building Elements. The Sound Transmission Class (STC) was determined in accordance with ASTM standard classification E413-1987.

Measurements were controlled by a desktop PC-type computer interfaced to a Norwegian Electronics type 830 real time analyzer. Under computer control, the microphones were moved to nine positions to sample the sound field in each chamber. Sound pressure levels were measured at each of the nine microphone positions, and combined to get the average sound pressure level in each room. Five sound decays were averaged to get the reverberation time at each microphone position in the receiving room; these times were then averaged to get mean reverberation times for the room. The sound pressure level and reverberation time measurements were made for all standard one-third-octave-bands from 50 Hz to 6.3 kHz. These data were then used to calculate sound transmission loss (TL) for each frequency band as specified in ASTM E90.

## **PRECISION AND REPRODUCIBILITY**

Acoustical measurements in rooms involve sampling non-uniform sound fields, and as such have associated with them a degree of uncertainty. By correctly performing a number of measurements to determine a spatial average, the uncertainties can be reduced. Upper and lower limits can then be assigned to the probable error in the measurement. These precision limits can be described in terms of the concepts of *repeatability* and *reproducibility*.

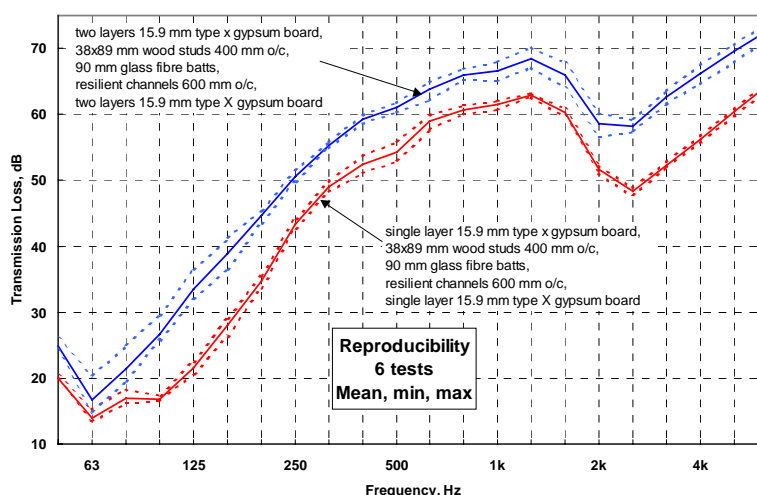
*Repeatability* is defined as the closeness of agreement between independent results obtained with a single test specimen in the same laboratory with the same equipment and test method by the same operator within a short time period.

*Within-laboratory Reproducibility* is defined as the closeness of agreement between results obtained for a nominally identical test specimen that has been completely reconstructed in the same laboratory and the same test method has been used.

*Between-laboratory Reproducibility* is defined as the closeness of agreement between results obtained on nominally identical test specimens with the same test method but in different laboratories. Obviously this includes the deviations due to systematic differences between facilities and equipment, any variations in implementation of the test procedures, and also any uncontrolled differences in the specimen and its installation. The reproducibility is a characteristic of the test method, which must be determined by a comparison study among laboratories.

A working estimate of the within-laboratory reproducibility was obtained by completely reconstructing a nominally identical wall assembly six times using new materials each time. This was done for two walls of single wood stud construction over a period of about one year using materials obtained from the same lot. The first wall had an average STC of 46, while the second had considerably better sound insulation and provided an average of STC 57.

Figure 1: Results of sound transmission measurements to show ability to reproduce the same results after a complete specimen rebuild. The upper curves are data for the nominal STC 57 wall while the lower curves are for the nominal STC 46 wall. (Solid curve is the mean, dotted curves are minimum and maximum.)



The results in Figure 1 indicate that a specimen can be completely re-constructed using new materials obtained from the same lot over an extended period of time with a reasonable degree of reproducibility. Table 1 summarizes the results.

Table 1: Summary of within-laboratory reproducibility results for two wood stud constructions having different sound insulation.	Construction	Mean STC	Range in STC	STC 95% Confidence Interval
	One layer 15.9 mm type X gypsum board, 38x89 mm wood studs 400 mm o/c, 90 mm glass fiber batts, resilient channels 600 mm o/c, one layer 15.9 mm type X gypsum board	46	45 - 46	1
	Two layers 15.9 mm type X gypsum board, 38x89 mm wood studs 400 mm o/c, 90 mm glass fiber batts, resilient channels 600 mm o/c, two layers 15.9 mm type X gypsum board	57	56 - 59	3

A working estimate of measurement repeatability was generated by repeated measurements of the same wall specimen made over a period of two days. The data presented in Figure 2 are expressed in terms of the closeness of agreement that will be obtained 19 times out of 20.



Figure 2: Estimates of measurement repeatability and within laboratory reproducibility for two wall constructions (STC 46 and 57) as well as the between laboratory reproducibility given in ISO 140 and ASTM E1289

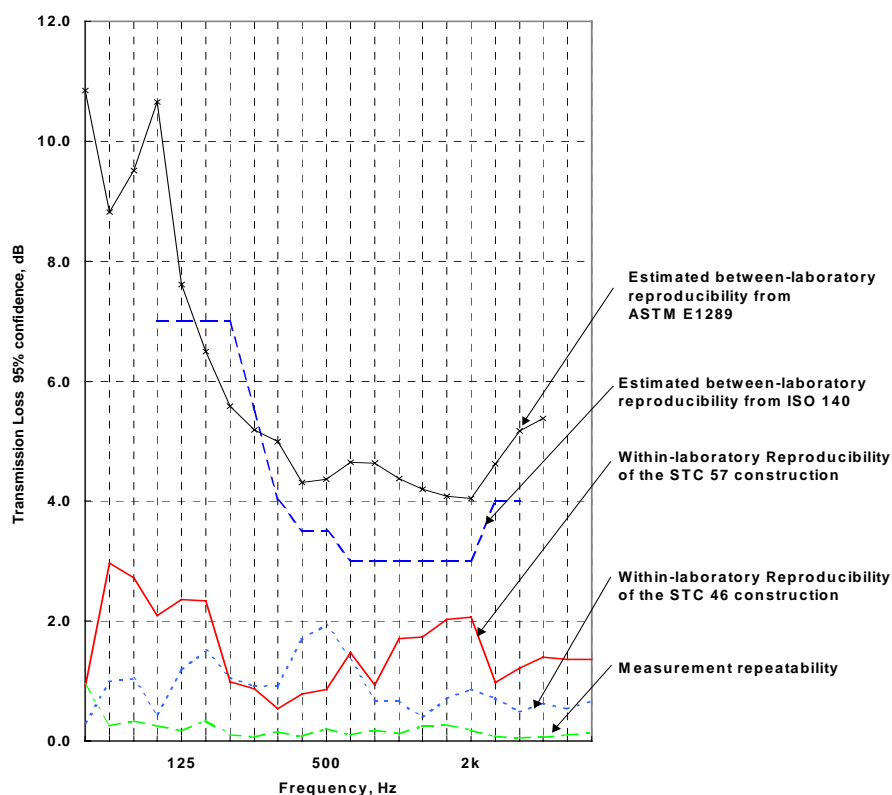


Figure 2 allows the comparison of measurement repeatability and within laboratory reproducibility for the two constructions. Data for the between-laboratory reproducibility for North American laboratories published in ASTM E1289 and data for European laboratories published in ISO 140 are shown in the figure for comparison. The results shown in Figure 2 also indicate that the closeness with which a laboratory is able to reproduce TL results will be a function of the specimen construction and of its sound insulation potential. Although there are insufficient data to make a definitive statement, the data of Figure 2 suggest that there will be poorer reproducibility for specimens having higher sound insulation

## EXPERIMENTAL DESIGN

To minimize the effect of construction variations among specimens, the series used “small change comparisons” as much as possible. Each stud set built was used for a group of tests, to permit comparisons with a sequence of small changes from specimen to specimen. Each group of specimens included a case with 15.9 mm Type X gypsum board and Type (G1) glass fiber batts; these cases could be compared to ensure consistency among groups.

## **SPECIMEN INSTALLATION DETAILS**

**Metric Dimensions:** This report uses metric dimensions only. The dimensions are converted to precise metric sizes where that conforms to normal industry practice, such as thickness of gypsum board or dimensions of studs. Some dimensions such as spacing between studs (which was previously specified as 16 or 24 in.) have been converted to approximate equivalents (406 and 610 mm respectively) to match normal practice, as in the National Building Code of Canada.

**Specimen size:** Wall specimens were mounted in removable test frames whose openings measure 3.05 m x 2.44 m. The faces of these frames are lined with wood, and the specimen framing was screwed to these surfaces. One frame has this lining split and resiliently mounted; this was used for double stud specimens. Coupling between the test frame and the sound field in the chambers was reduced by installing shields over the exposed parts of the test frame. The shields mask about 2 cm of the specimens at the perimeter; the actual exposed specimen area was used for calculation of Sound Transmission Loss.

For specimens with studs spaced 406 mm o.c. apart, a smaller (200 mm) inter-stud cavity occurs at one side of the specimen. This was masked off, because tests at IRC/NRCC and elsewhere have shown slightly different Sound Transmission Loss when these small sub-panels are included as part of the specimen. Hence, specimens with studs at 406 mm o.c. had an exposed width of approximately 2.8 m (seven inter-stud cavities).

**Gypsum Board Attachment:** A preceding systematic study (Proceedings Inter-noise 1993, p971) showed significant dependence of the sound transmission on fastener spacing and the type of framing. To ensure results were representative of practical walls, the specimens reported here were constructed with screw type, length, and placement conforming to the pertinent requirements of the National Building Code of Canada and the applicable Canadian standard CAN/CSA-A82.31-M91 “Gypsum Board Application”. The screw placement for a given sheet of gypsum board depends on the type of framing, spacing of supporting framing, and whether the gypsum board is the base or face layer. Attention was given to the location of the joints between sheets of gypsum board, to ensure they were staggered as required. Diagrams showing screw patterns for each case are given in the next section.

Not illustrated are the layouts used with resilient channels. In all cases having resilient channels the attachment points are only into the resilient channels. Along the edges of the sheets on all layers the screws are placed 305 mm apart. Within the field (central area away from the edges) the screws are spaced at 610 mm for the base layer and at 305 mm for single and face layers.

To minimize installation variability, standard type “S” gypsum board screws were used in all cases, and were installed (using an electric screw gun) so heads were just below the surface of the gypsum board, but not breaking the surface paper.

To minimize the effect of variations due to stud changes, sets of stud assemblies were re-used. Only nine or fewer changes of screws were used on either side of a set of studs except in cases

where gypsum board was attached to resilient channels which could easily be replaced,. The screw positions were shifted (by about 1 cm) from one case to the next to avoid previous screw holes.

The effect of some possible variants from standard installation were examined for specimens with 25 gauge (0.50 mm) steel framing. For fire resistance, the 1990 National Building Code requires that non-loadbearing (25-gauge or 26-gauge) steel studs not be screwed to the upper track; that is, installation should conform to pattern (b) in Figures 1 and 6. Included in the study for the purpose of comparison are specimens with screw patterns (a) to (d).

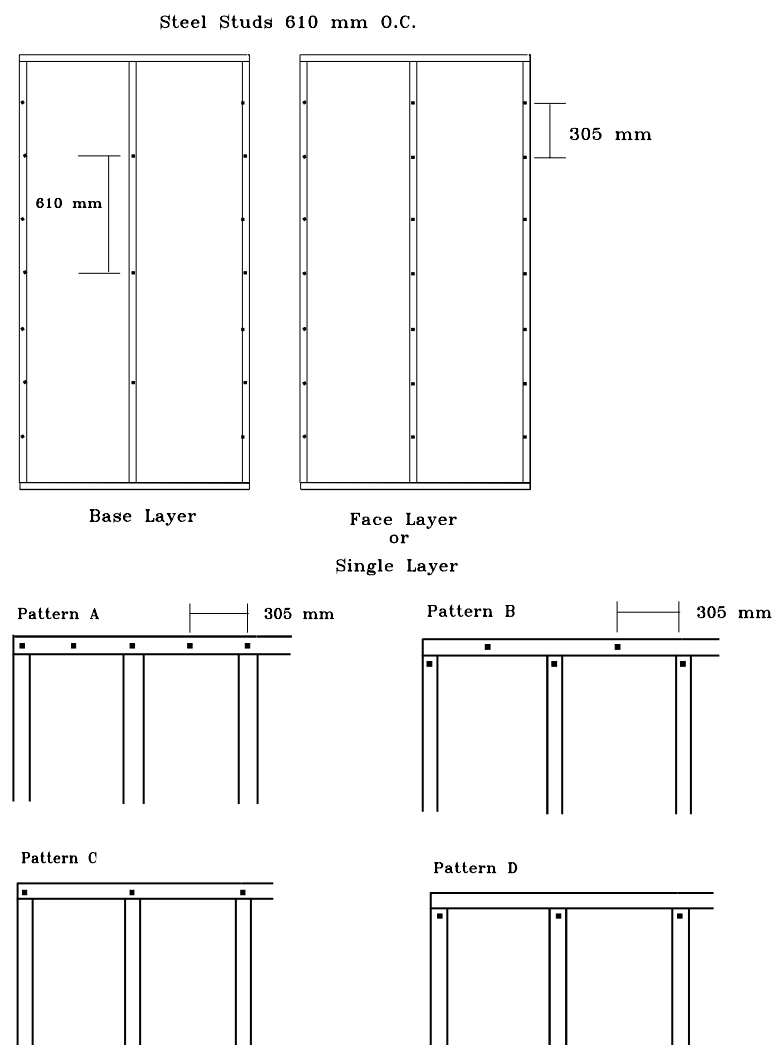
Omitting screws at the upper edge of the gypsum board is also recommended for simple wood stud and staggered wood stud walls where potential uplift by roof trusses is of concern.

**Finishing at Joints and Edges:** In normal construction practice, joints and edges of gypsum board walls are finished with joint compound and tape. However, repeated sound transmission testing of several wall specimens while the joint compound was drying confirmed that walls finished in this manner require about two days curing before achieving stable sound transmission performance. Since a series of over 200 walls was planned, a more rapid joint finishing technique was clearly desirable. Comparisons for four trial specimens showed that caulking joints and covering them with aluminum tape gave sound transmission performance at all frequencies within a fraction of a decibel of that for standard finish with joint compound after curing; the STC was the same in all cases. If the joints were simply taped, the STC values tended to be 1 lower. If joints were filled with a mastic compound (used by some acoustical testing laboratories to fill joints), high frequency sound transmission loss and STC values tended to be higher than those for the standard finish. Hence, the caulking and tape finish were used to seal joints for all specimens reported here.

## GYPSUM BOARD ATTACHMENT DETAILS

This section illustrates the screw attachment layouts used.

### Screw attachment to non-loadbearing steel studs at 600 mm o.c:



*Figure 3: Screw attachment layout for single or double-ply gypsum board attached parallel to non-loadbearing steel studs at 600 mm o.c., single tracks at top and bottom.*

Top and bottom track attachment patterns:

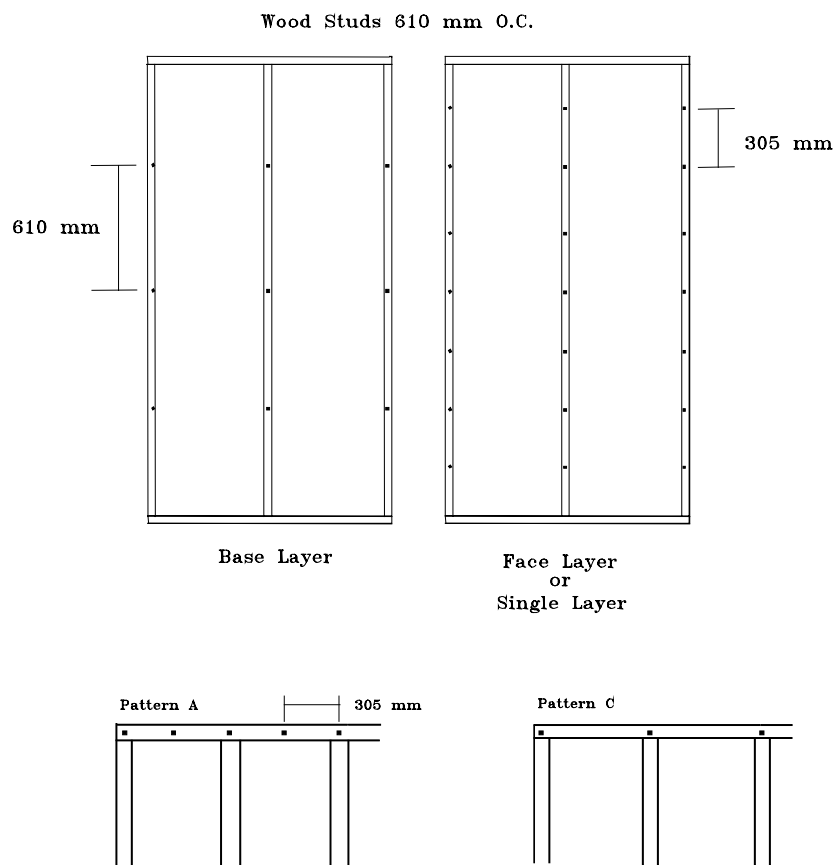
**Pattern B** is required for the top track of single, face and base layers for fire resistance (Clause 18.2.6 of CAN/CSA-A82.31-M91 and National Building Code of Canada 1990, Section 9.24.3.2) and studs are not attached to top track

**Pattern A** for the bottom track of single, face, and base layers.

**Patterns A and B** meet the requirements of CAN/CSA-A82.31-M91, Clause 12.2.3.1, and National Building Code of Canada 1990, Section 9.29.5.9.

Pattern C and D were used for the top track in some cases as discussed in the text.

**Screw attachment to wood studs at 600 mm o.c.:**



*Figure 4: Screw attachment layout for single or double-ply gypsum board attached parallel to wood studs at 600 mm o.c., single plates at top and bottom.*

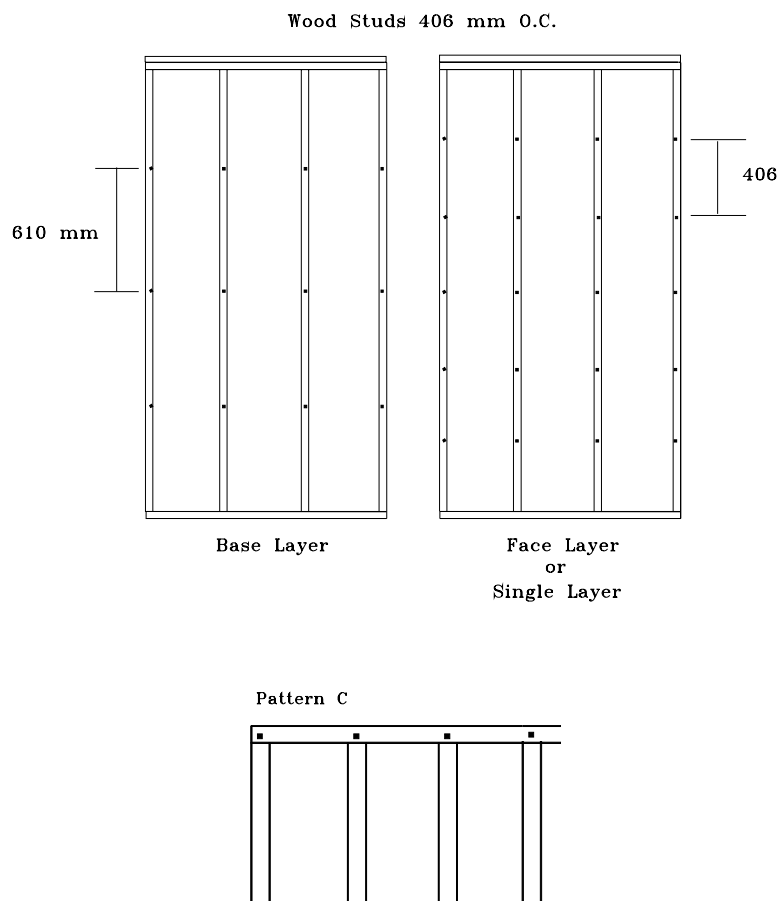
Top and bottom plate attachment patterns:

**Pattern A** for single or face layer

**Pattern C** for base layer

Meets requirements of CAN/CSA-A82.31-M91, Clause 7.3.4, and National Building Code of Canada 1990, Section 9.29.5.9.

# Screw attachment to wood studs at 400 mm o.c:



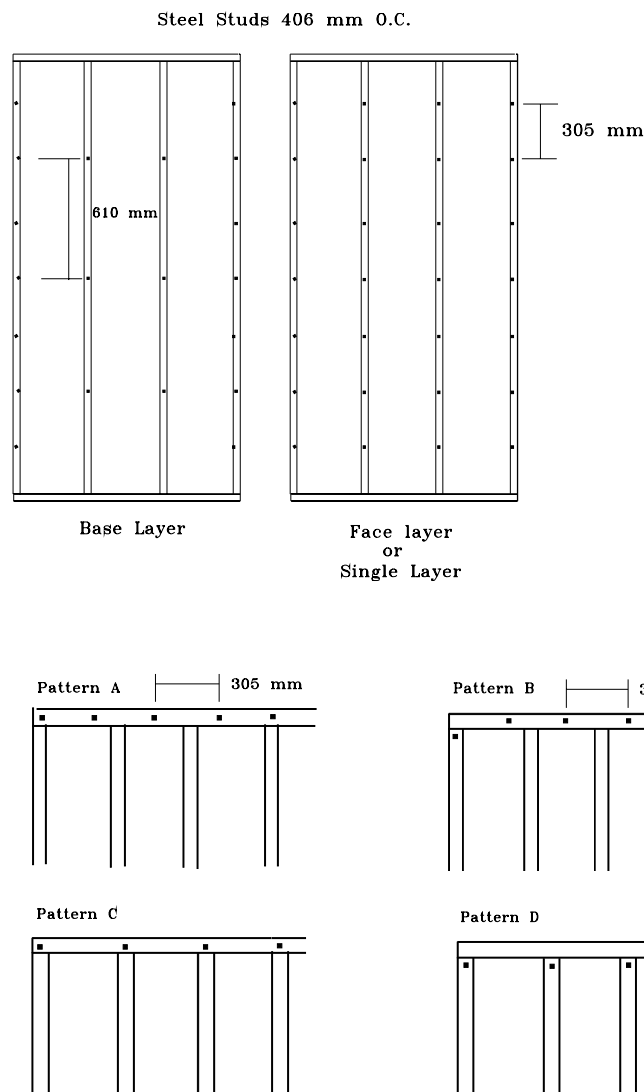
*Figure 5: Screw attachments layout for single or double-ply gypsum board attached parallel to wood studs at 400 mm o.c., double plate at top, single plate at bottom.*

Top and bottom plate attachment patterns:

**Pattern C** for single, face and base layers

Meets requirements of CAN/CSA-A82.31-M91, Clause 7.3.4, and National Building Code of Canada 1990, Section 9.29.5.9.

## Screw attachment to steel studs at 400 mm o.c.:



*Figure 6: Screw attachment layout for single and double-ply gypsum board attached parallel to steel studs at 400 mm o.c., single tracks at top and bottom*

Top and bottom track attachment patterns:

For non-loadbearing steel studs,

**Pattern B** is required for the top track of single, face and base layers for fire resistance (Clause 18.2.6 of CAN/CSA-A82.31-M91 and National Building Code of Canada 1990, Section 9.24.3.2) and studs are not attached to top track

**Pattern A** for bottom track of single, face, and base layers.

**Patterns A and B** meet requirements of CAN/CSA-A82.31-M91, Clause 12.2.3.1, and National Building Code of Canada 1990, Section 9.29.5.9.

**Pattern C and D** were used for the top track in some cases as discussed in the text.

For loadbearing studs:

**Pattern A** for the top and bottom track, however since the screw spacing is 300 mm, there will only be a screw into the stud at the joint between sheets of gypsum board.

Meets requirements of CAN/CSA-A82.31-M91, Clause 12.2.3.1, and National Building Code of Canada 1990, Section 9.29.5.9.

## CHARACTERISTICS OF MATERIALS

Properties of the materials were characterized as fully as possible. The specific properties measured and/or recorded included:

- Dimensions and weight for every component (framing, insulation, gypsum board, etc.) of each wall specimen, together with any special features of the materials or installation.
- Moisture content for each wood stud. This was measured at FORINTEK, and subsequently checked at IRC/NRCC laboratory during the testing with each wood frame assembly. Wood studs were conditioned in the FORINTEK laboratories at 50% relative humidity, to establish consistent moisture content. The water content was intended to be representative of that for wall assemblies several years after construction.
- Airflow resistivity for samples of each type of absorptive material. This was measured at IRC/NRCC in accordance with ASTM method C522-87.

Most of the materials used in these assemblies are manufactured products with clearly defined dimensions and other properties. The exception to this rule is cellulose fibre, for which the base material has controlled properties, but the installation permits some variation, as it is blown or sprayed into the wall cavities on site. This permits variation in density, which affects air flow resistance, total weight, and stiffness of the resulting cavity fill. The density was measured when each wall specimen with cellulose fiber was taken apart, and is presented in the tables.



## ABSORPTIVE MATERIAL

The weight of absorptive material was recorded for each specimen tested. These values were used to calculate the average weight per unit area, and the density. For wet-sprayed cellulose fibre, the actual thickness was sampled at many positions to determine the average. For blown-in cellulose fibre, the thickness was taken to be the depth of the stud cavity.

Airflow resistance was measured in accordance with ASTM C522-87 for samples of each type of absorptive material (square samples 150 x 150 mm). For airflow measurement of loose fill cellulose fibre material, the material was compressed in the specimen holder to approximately the same density obtained when it was blown into the wall cavities. Several tests with different compression showed the airflow resistivity was quite sensitive to compression for this material. Values should therefore be recognized as rather uncertain; significant changes might occur for the range of densities observed in wall specimens. Data are listed in Table 2.

*Table 2: Density and airflow resistivity for samples of absorptive material.*

		Density (kg/m <sup>3</sup> )		Airflow Resistivity (mks rayls/m)	
		Average Value	Standard Deviation	Average Value	Standard Deviation
glass fibre (G1)	89 mm batt	12.2	0.4	4800	400
glass fibre (G1)	65 mm batt	11.7	1.0	3600	200
glass fibre (G1)	150 mm batt	11.2	0.0	4300	700
glass fibre (G2)	89 mm batt	16.4	0.6	7900	400
mineral fibre (M1)	89 mm batt	32.6	2.1	12700	2300
mineral fibre (M1)	65 mm batt	36.7	2.1	11400	1700
mineral fibre (M2)	75 mm batt	44.2	1.7	16600	900
mineral fibre (M2)	40 mm batt	51.9	2.2	15000	500
mineral fibre (M3)	83 mm batt	98.1	1.3	58800	5200
cellulose (C1)	wet spray	56.3	10.2	N/A	N/A
cellulose (C2)	90 mm blown	49.3	6.0	33000	

## WOOD STUDS

The weight of the wood studs was recorded for each wall specimen. The average weight per metre of the nominal 38x89 mm studs was 1.36 kg/m with a standard deviation of 0.06 kg/m. The average moisture content was determined by FORINTEK to be 9.4% with a standard deviation of 0.5%. The moisture content was also monitored periodically over the time each specimen was in place in the acoustics test chambers; variations were less than 1% moisture content in all cases.

## STEEL FRAMING

Weights and dimensions were recorded for all studs and/or resilient furring channels in each wall specimen. The weight per metre for each type varied only slightly, as shown by the statistics in Table 3.

*Table B3: Dimensions and weight of steel framing.*

Nominal Type	Weight per Unit Length (kg/m)		Measured Cross Section (mm x mm)
	Average Value	Standard Deviation	
31x92 mm 25 gauge (0.53 mm) steel studs	0.55	0.03	30 x 91
31x92 mm 25 gauge (0.53 mm) steel stud track	0.59	0.06	30 x 91
31x64 mm 25 gauge (0.53 mm) steel studs	0.47	0.01	32 x 65
31x64 mm 25 gauge (0.53 mm) steel stud track	0.42	0.01	32 x 65
31x152 mm 25 gauge (0.53 mm) steel studs	0.78	0.01	30 x 150
31x152 mm 25 gauge (0.53 mm) steel stud track	0.94	0.01	30 x 150
31x41 mm 25 gauge (0.53 mm) steel studs	0.39	0.01	32 x 40
31x41 mm 25 gauge (0.53 mm) steel stud track	0.36	0.04	32 x 40
31x152 mm 18 gauge (1.22 mm) steel studs	2.41	0.01	40 x 150
31x152 mm 18 gauge (1.22 mm) steel stud track	1.97	0.01	30 x 150
31x92 mm 18 gauge (1.22 mm) steel studs	1.79	0.04	40 x 91
31x92 mm 18 gauge (1.22 mm) steel stud track	1.48	0.01	30 x 91
31x92 mm 16 gauge (1.52 mm) steel studs	2.24	0.01	40 x 91
31x92 mm 16 gauge (1.52 mm) steel stud track	1.89	0.01	30 x 91
13 mm 26 gauge (0.45 mm) galvanized steel resilient channel	0.25	0.01	61 x 13

## GYPSUM BOARD

The weight of each sheet of gypsum board was recorded. The weights and the total wall area were used to calculate the surface densities given in Table 4. The variability in these values was small.

*Table 4: Surface density for each gypsum board type.*

Nominal Type	Surface Density (kg/m <sup>2</sup> )	
	Average Value	Standard Deviation
15.9 mm Type X (A)	11.5	0.1
15.9 mm Type X (B)	10.9	0.1
15.9 mm Type X (C)	11.2	0.3
12.7 mm Type X (A)	10.0	0.2
12.7 mm Type X (B)	9.7	0.2
12.7 mm Type X (C)	8.7	0.1
12.7 mm (A)	7.6	0.2
12.7 mm (B)	8.2	0.1
12.7 mm (B) light weight	7.3	0.1
12.7 mm (C)	8.0	0.2

All gypsum board sheets were initially conditioned horizontally on flat pallets. When required, sheets were placed in the conditioning laboratory in piles with 3 mm veneer spacers between each sheet to expose all surfaces to the conditioned atmosphere. The gypsum board was held in this way for at least two months even though steady state conditions were attained in a much shorter period of time. The weight of select panels was measured on a daily basis to determine the rate of conditioning. The gypsum board was conditioned using the same environmental conditions (50% relative humidity and 20°C) that were used for the wood studs. The moisture content of the face paper reached 10% relatively quickly. The moisture content of the gypsum (as measured with the same moisture meter which is not calibrated for gypsum board) was found to be approximately 4-5 % higher than for wood under the same environmental conditions. Equilibrium was attained fairly quickly.

## INDIVIDUAL SPECIMEN DATA

This section provides the detailed results for each specimen tested, with one page summarizing the results of each test.

Note that all dimensions are rounded to the nearest millimetre. Thus 12.7 mm gypsum board is listed as 13 mm.

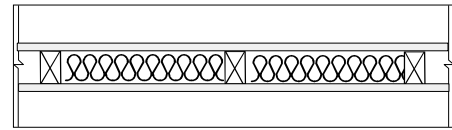
The material codes used in the tables of material properties are the same as used in Tables 2 and 4.

The code given at the top right of each page gives a provides a shorthand description of the wall construction. The abbreviations used are:

<b>nGxx</b>	‘n’ layers of Gypsum board with a nominal thickness of ‘xx’ mm.
<b>WFBxx</b>	Wood fibre board with a nominal thickness of ‘xx’ mm.
<b>WSxx(ss)</b>	Wood studs with a nominal depth of ‘xx’ mm spaced ‘ss’ mm apart.
<b>SWSxx(ss)</b>	Staggered wood studs with a nominal depth of ‘xx’ mm spaced ‘ss’ mm apart.
<b>SSxx(ss)</b>	Steel studs with a nominal depth of ‘xx’ mm spaced ‘ss’ mm apart.
<b>RCxx(ss)</b>	Resilient channels with a thickness of ‘xx’ mm and spaced ‘ss’ mm apart.
<b>GFBxx</b>	Glass fibre batts with a nominal thickness of ‘xx’ mm.
<b>MFBxx</b>	Mineral fibre batts with a nominal thickness of ‘xx’ mm.
<b>CFLxx</b>	Blown cellulose fibre with a nominal thickness of ‘xx’ mm.
<b>CFSxx</b>	Sprayed cellulose fibre with a nominal thickness of ‘xx’ mm.
<b>AIRxx</b>	Air space with a nominal depth of ‘xx’ mm.

Element	Description:
1	single layer of 13 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	90 mm of blown cellulose fibre insulation in cavity
4	single layer of 13 mm type X gypsum board

G13\_WS90(406)\_CFL90\_G13

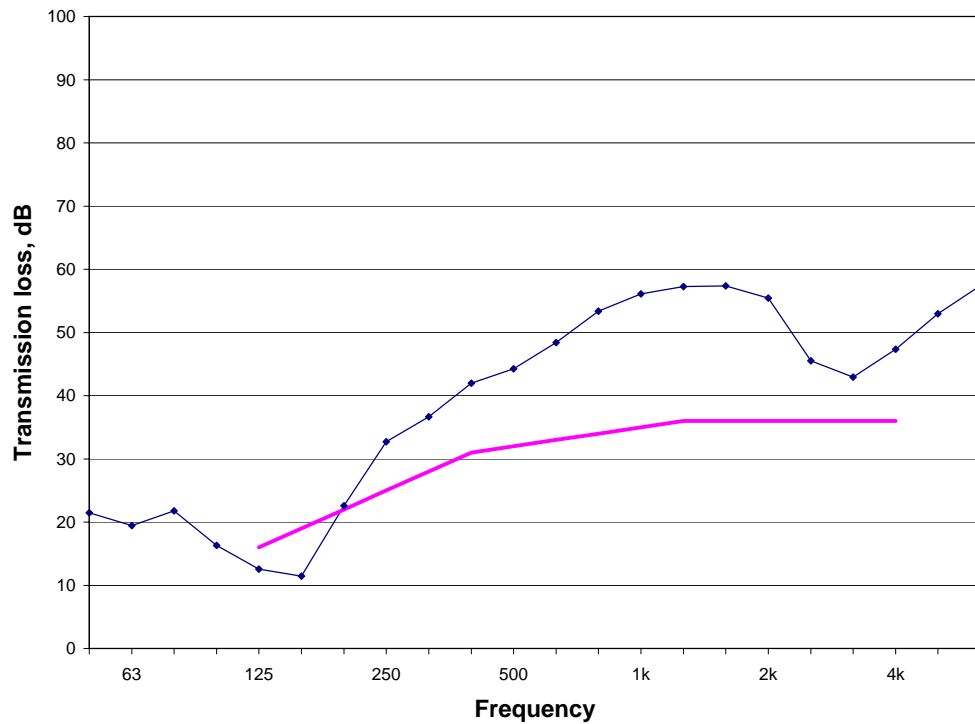


TestID	TL-93-176
STC	32
50 Hz	21.5
63 Hz	19.5
80 Hz	21.8
100 Hz	16.3
125 Hz	12.5
160 Hz	11.4
200 Hz	22.6
250 Hz	32.7
315 Hz	36.7
400 Hz	42.0
500 Hz	44.2
630 Hz	48.4
800 Hz	53.4
1000 Hz	56.1
1250 Hz	57.3
1600 Hz	57.4
2000 Hz	55.4
2500 Hz	45.5
3150 Hz	43.0
4000 Hz	47.4
5000 Hz	53.0
6300 Hz	57.4

TL-93-176

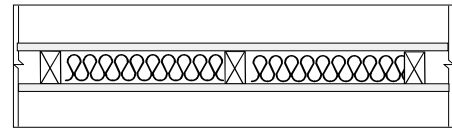
	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	AX	wood	C2	AX
thickness mm	13	90	90	13
gauge				
spacing mm		406		
surface density kg/m <sup>2</sup>	10.0		4.8	10.1
linear density kg/m		1.4		
total weight kg	74.4	41.3	32.7	74.9
fastener spacing - edge mm	406			406
fastener spacing - field mm	406			406
fastener top track pattern	c			c
fastener base track pattern	c			c
stud attached to top track		yes		
double header		yes		
orientation	vertical			vertical

TL-93-176  
STC 32



Element	Description:
1	single layer of 13 mm gypsum board
2	90 mm wood studs at 406 mm on centre
3	90 mm of mineral fibre insulation in cavity
4	single layer of 13 mm gypsum board

G13\_WS90(406)\_MFB90\_G13

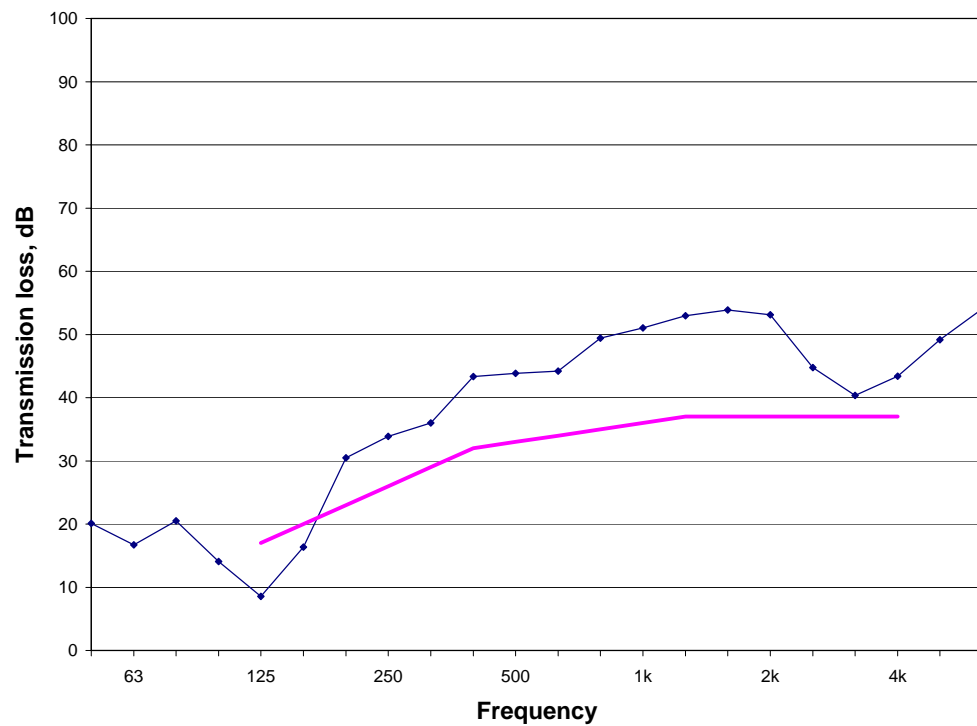


TestID	TL-93-166
STC	33
50 Hz	20.1
63 Hz	16.7
80 Hz	20.5
100 Hz	14.1
125 Hz	8.6
160 Hz	16.4
200 Hz	30.5
250 Hz	33.9
315 Hz	36.0
400 Hz	43.4
500 Hz	43.8
630 Hz	44.2
800 Hz	49.4
1000 Hz	51.1
1250 Hz	53.0
1600 Hz	53.9
2000 Hz	53.1
2500 Hz	44.8
3150 Hz	40.4
4000 Hz	43.4
5000 Hz	49.2
6300 Hz	54.1

TL-93-166

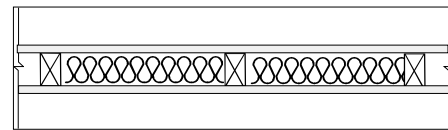
	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	B	wood	M1	B
thickness mm	13	90	90	13
gauge				
spacing mm		406		
surface density kg/m <sup>2</sup>	8.3		2.3	8.3
linear density kg/m		1.6		
total weight kg	61.5	46.8	17.3	61.8
fastener spacing - edge mm	406			406
fastener spacing - field mm	406			406
fastener top track pattern	c			c
fastener base track pattern	c			c
stud attached to top track		yes		
double header		yes		
orientation	vertical			vertical

TL-93-166  
STC 33



Element	Description:
1	single layer of 13 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	90 mm of mineral fibre insulation in cavity
4	single layer of 13 mm type X gypsum board

G13\_WS90(406)\_MFB90\_G13

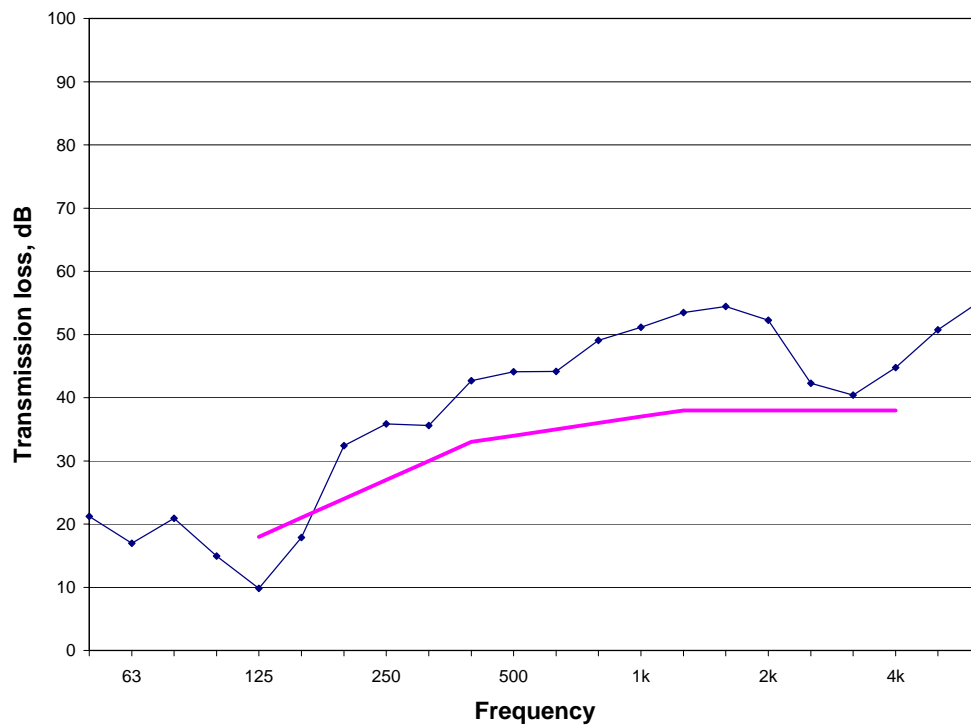


TestID	TL-93-188
STC	34
50 Hz	21.2
63 Hz	16.9
80 Hz	20.9
100 Hz	14.9
125 Hz	9.8
160 Hz	17.9
200 Hz	32.4
250 Hz	35.9
315 Hz	35.6
400 Hz	42.7
500 Hz	44.1
630 Hz	44.1
800 Hz	49.1
1000 Hz	51.1
1250 Hz	53.5
1600 Hz	54.4
2000 Hz	52.3
2500 Hz	42.3
3150 Hz	40.4
4000 Hz	44.7
5000 Hz	50.8
6300 Hz	55.3

TL-93-188

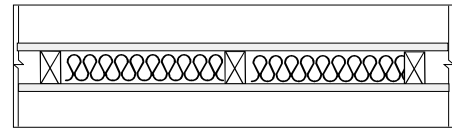
	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	AX	wood	M1	AX
thickness mm	13	90	90	13
gauge				
spacing mm		406		
surface density kg/m <sup>2</sup>	10.1		2.4	10.1
linear density kg/m		1.4		
total weight kg	75.1	41.3	17.8	75.4
fastener spacing - edge mm	406			406
fastener spacing - field mm	406			406
fastener top track pattern	c			c
fastener base track pattern	c			c
stud attached to top track		yes		
double header		yes		
orientation	vertical			vertical

TL-93-188  
STC 34



Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	90 mm of mineral fibre insulation in cavity
4	single layer of 16 mm type X gypsum board

G16\_WS90(406)\_MFB90\_G16

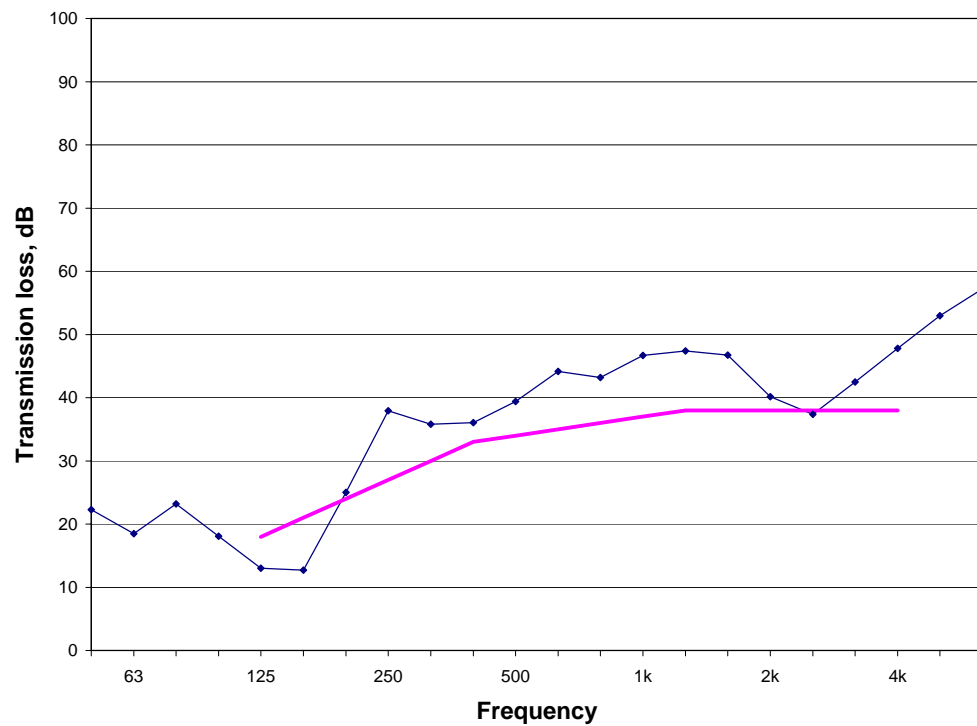


TestID	TL-93-157
STC	34
50 Hz	22.3
63 Hz	18.5
80 Hz	23.2
100 Hz	18.1
125 Hz	13.0
160 Hz	12.7
200 Hz	25.0
250 Hz	37.9
315 Hz	35.8
400 Hz	36.1
500 Hz	39.4
630 Hz	44.2
800 Hz	43.2
1000 Hz	46.7
1250 Hz	47.4
1600 Hz	46.8
2000 Hz	40.2
2500 Hz	37.4
3150 Hz	42.5
4000 Hz	47.8
5000 Hz	52.9
6300 Hz	57.2

TL-93-157

	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	CX	wood	M1	CX
thickness mm	16	90	90	16
gauge				
spacing mm		406		
surface density kg/m <sup>2</sup>	11.0		2.3	11.0
linear density kg/m		1.6		
total weight kg	81.7	46.8	17.3	81.4
fastener spacing - edge mm	406			406
fastener spacing - field mm	406			406
fastener top track pattern	c			c
fastener base track pattern	c			c
stud attached to top track		yes		
double header		yes		
orientation	vertical			vertical

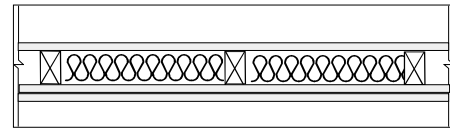
TL-93-157  
STC 34





G13\_WS90(406)\_CFL90\_2G13

Element	Description:
1	single layer of 13 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	90 mm of blown cellulose fibre insulation in cavity
4	single layer of 13 mm type X gypsum board
5	single layer of 13 mm type X gypsum board

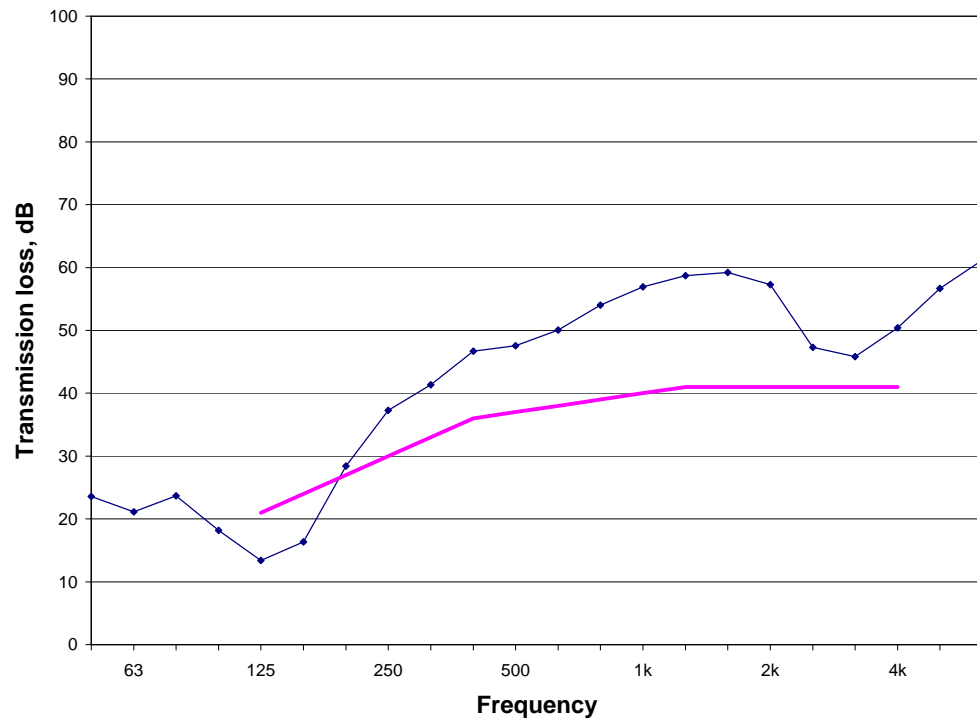


TestID	TL-93-175
STC	37
50 Hz	23.6
63 Hz	21.1
80 Hz	23.7
100 Hz	18.2
125 Hz	13.4
160 Hz	16.3
200 Hz	28.4
250 Hz	37.3
315 Hz	41.4
400 Hz	46.7
500 Hz	47.5
630 Hz	50.1
800 Hz	54.0
1000 Hz	56.9
1250 Hz	58.7
1600 Hz	59.2
2000 Hz	57.3
2500 Hz	47.3
3150 Hz	45.8
4000 Hz	50.4
5000 Hz	56.7
6300 Hz	61.2

TL-93-175

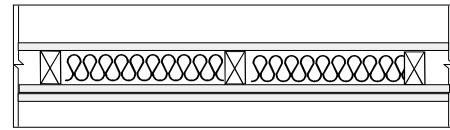
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	gypsum board	gypsum board
material	AX	wood	C2	AX	AX
thickness mm	13	90	90	13	13
gauge					
spacing mm		406			
surface density kg/m <sup>2</sup>	10.0		4.8	10.1	10.0
linear density kg/m		1.4			
total weight kg	74.4	41.3	32.7	74.9	74.5
fastener spacing - edge mm	406			610	406
fastener spacing - field mm	406			610	406
fastener top track pattern	c			c	c
fastener base track pattern	c			c	c
stud attached to top track		yes			
double header		yes			
orientation	vertical			vertical	vertical

TL-93-175  
STC 37



G13\_WS90(406)\_MFB90\_2G13

Element	Description:
1	single layer of 13 mm gypsum board
2	90 mm wood studs at 406 mm on centre
3	90 mm of mineral fibre insulation in cavity
4	single layer of 13 mm gypsum board
5	single layer of 13 mm gypsum board

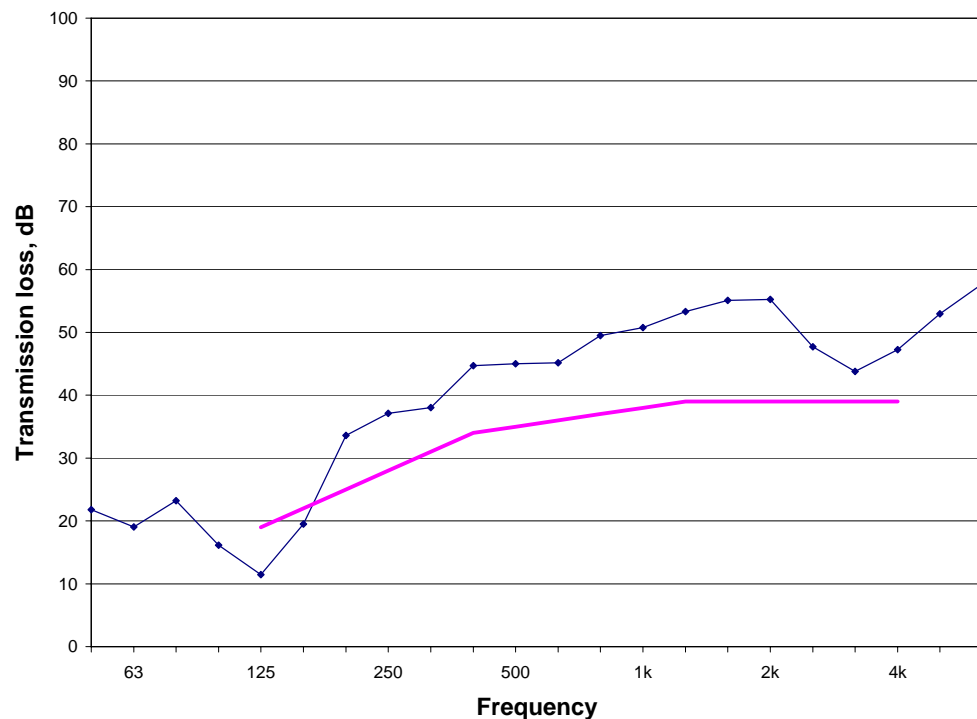


TestID	TL-93-167
STC	35
50 Hz	21.8
63 Hz	19.0
80 Hz	23.2
100 Hz	16.2
125 Hz	11.5
160 Hz	19.5
200 Hz	33.6
250 Hz	37.1
315 Hz	38.0
400 Hz	44.7
500 Hz	45.0
630 Hz	45.1
800 Hz	49.5
1000 Hz	50.8
1250 Hz	53.3
1600 Hz	55.1
2000 Hz	55.2
2500 Hz	47.7
3150 Hz	43.8
4000 Hz	47.3
5000 Hz	53.0
6300 Hz	57.7

TL-93-167

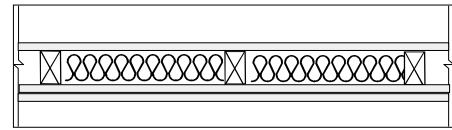
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	gypsum board	gypsum board
material	B	wood	M1	B	B
thickness mm	13	90	90	13	13
gauge					
spacing mm		406			
surface density kg/m <sup>2</sup>	8.3		2.3	8.3	8.3
linear density kg/m		1.6			
total weight kg	61.5	46.8	17.3	61.8	61.7
fastener spacing - edge mm	406			610	406
fastener spacing - field mm	406			610	406
fastener top track pattern	c			c	c
fastener base track pattern	c			c	c
stud attached to top track		yes			
double header		yes			
orientation	vertical			vertical	vertical

TL-93-167  
STC 35



G16\_WS90(406)\_MFB90\_2G16

Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	90 mm of mineral fibre insulation in cavity
4	single layer of 16 mm type X gypsum board
5	single layer of 16 mm type X gypsum board

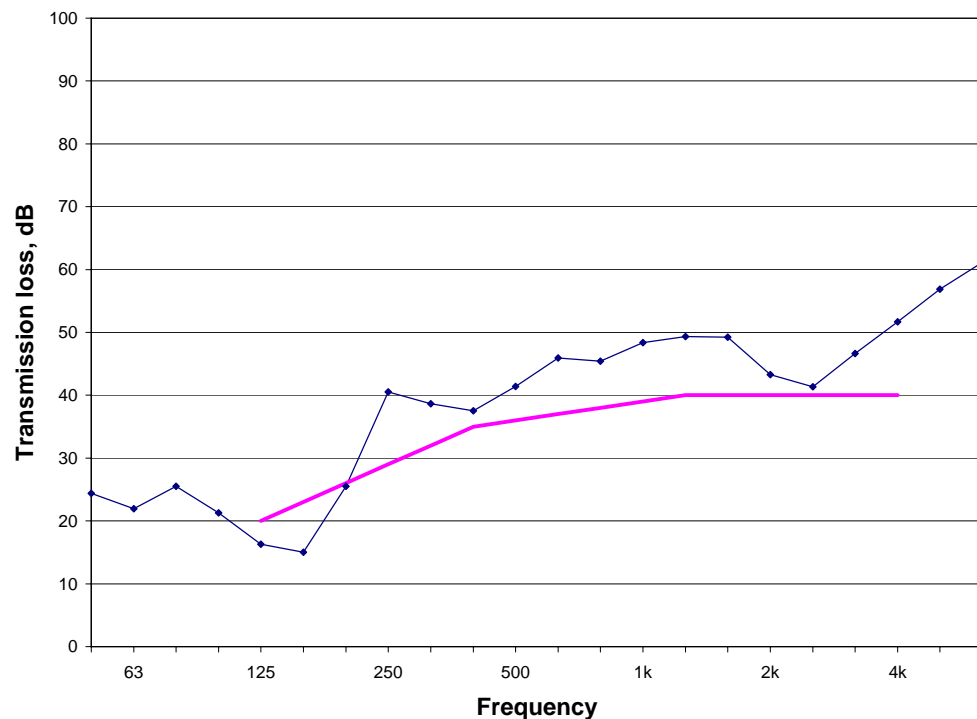


TestID	TL-93-158
STC	36
50 Hz	24.4
63 Hz	21.9
80 Hz	25.5
100 Hz	21.3
125 Hz	16.3
160 Hz	15.0
200 Hz	25.5
250 Hz	40.5
315 Hz	38.6
400 Hz	37.5
500 Hz	41.4
630 Hz	45.9
800 Hz	45.4
1000 Hz	48.4
1250 Hz	49.4
1600 Hz	49.2
2000 Hz	43.3
2500 Hz	41.3
3150 Hz	46.6
4000 Hz	51.7
5000 Hz	56.9
6300 Hz	61.2

TL-93-158

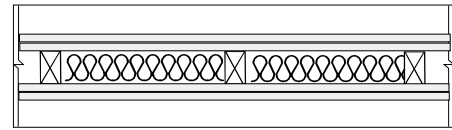
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	gypsum board	gypsum board
material	CX	wood	M1	CX	CX
thickness mm	16	90	90	16	16
gauge					
spacing mm		406			
surface density kg/m <sup>2</sup>	11.0		2.3	11.0	11.0
linear density kg/m		1.6			
total weight kg	81.7	46.8	17.3	81.4	81.7
fastener spacing - edge mm	406			610	406
fastener spacing - field mm	406			610	406
fastener top track pattern	c			c	c
fastener base track pattern	c			c	c
stud attached to top track		yes			
double header		yes			
orientation	vertical			vertical	vertical

TL-93-158  
STC 36



2G13\_WS90(406)\_CFL90\_2G13

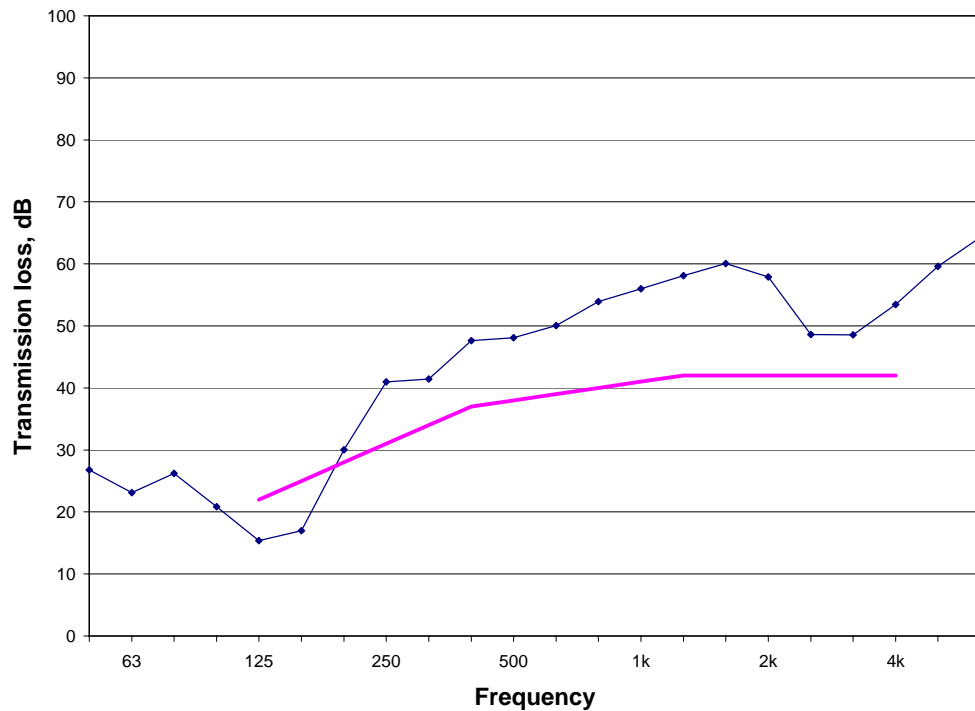
Element	Description:
1	single layer of 13 mm type X gypsum board
2	single layer of 13 mm type X gypsum board
3	90 mm wood studs at 406 mm on centre
4	90 mm of blown cellulose fibre insulation in cavity
5	single layer of 13 mm type X gypsum board
6	single layer of 13 mm type X gypsum board



TestID	TL-93-174
STC	38
50 Hz	26.8
63 Hz	23.1
80 Hz	26.2
100 Hz	20.9
125 Hz	15.4
160 Hz	17.0
200 Hz	30.1
250 Hz	41.0
315 Hz	41.4
400 Hz	47.6
500 Hz	48.1
630 Hz	50.0
800 Hz	53.9
1000 Hz	56.0
1250 Hz	58.1
1600 Hz	60.1
2000 Hz	57.9
2500 Hz	48.6
3150 Hz	48.6
4000 Hz	53.5
5000 Hz	59.6
6300 Hz	64.3

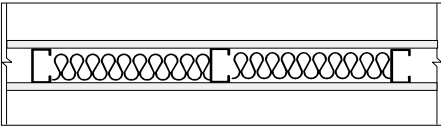
TL-93-174	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	gypsum board	stud	insulation	gypsum board	gypsum board
material	AX	AX	wood	C2	AX	AX
thickness mm	13	13	90	90	13	13
gauge						
spacing mm			406			
surface density kg/m <sup>2</sup>	10.0	10.0		4.8	10.1	10.0
linear density kg/m			1.4			
total weight kg	74.2	74.4	41.3	32.7	74.9	74.5
fastener spacing - edge mm	406	610			610	406
fastener spacing - field mm	406	610			610	406
fastener top track pattern	c	c			c	c
fastener base track pattern	c	c			c	c
stud attached to top track			yes			
double header			yes			
orientation	vertical	vertical			vertical	vertical

TL-93-174  
STC 38



Element	Description:
1	single layer of 13 mm type X gypsum board
2	150 mm steel studs at 610 mm on centre
3	150 mm of glass fibre insulation in cavity
4	single layer of 13 mm type X gypsum board

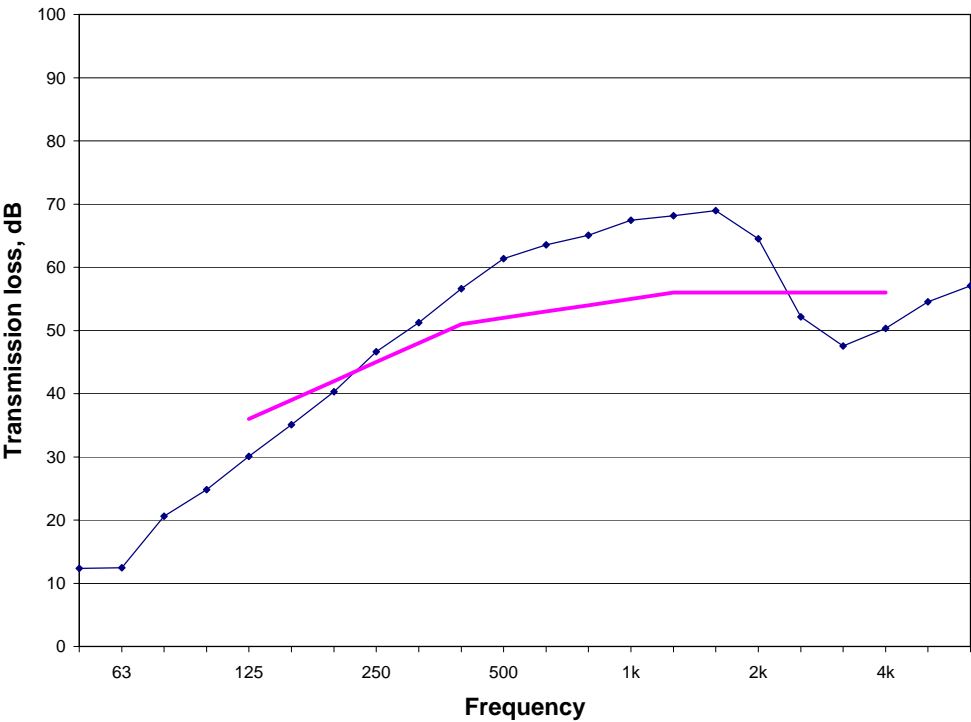
G13\_SS150(610)\_GFB150\_G13



TestID	TL-93-299
STC	52
50 Hz	12.3
63 Hz	12.4
80 Hz	20.6
100 Hz	24.8
125 Hz	30.1
160 Hz	35.1
200 Hz	40.3
250 Hz	46.6
315 Hz	51.2
400 Hz	56.6
500 Hz	61.4
630 Hz	63.5
800 Hz	65.1
1000 Hz	67.4
1250 Hz	68.1
1600 Hz	68.9
2000 Hz	64.5
2500 Hz	52.1
3150 Hz	47.5
4000 Hz	50.3
5000 Hz	54.5
6300 Hz	57.0

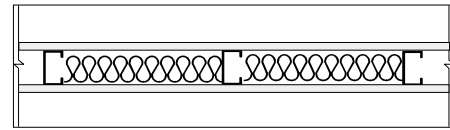
TL-93-299	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	AX	steel	G1	AX
thickness mm	13	150	150	13
gauge		25		
spacing mm		610		
surface density kg/m <sup>2</sup>	10.2		1.7	10.1
linear density kg/m		0.8		
total weight kg	75.8	17.2	12.5	74.8
fastener spacing - edge mm	305			305
fastener spacing - field mm	305			305
fastener top track pattern	a			a
fastener base track pattern	a			a
stud attached to top track		yes		
double header				
orientation	vertical			vertical

TL-93-299  
STC 52



Element	Description:
1	single layer of 13 mm type X gypsum board
2	65 mm steel studs at 406 mm on centre
3	65 mm of mineral fibre insulation in cavity
4	single layer of 13 mm type X gypsum board

G13\_SS65(406)\_MFB65\_G13

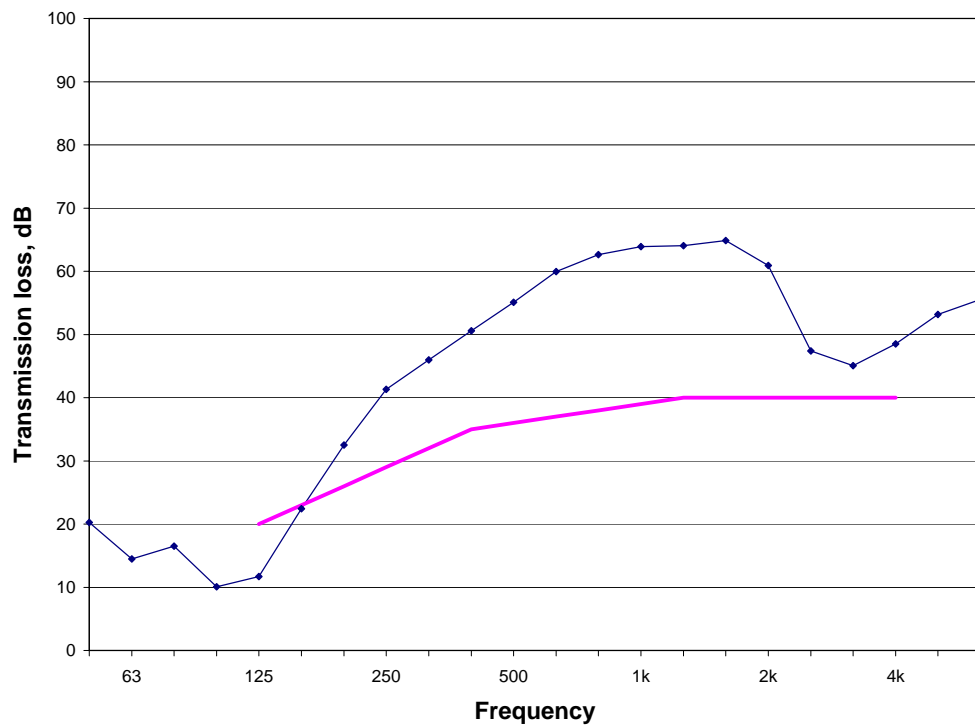


TestID	TL-93-064
STC	36
50 Hz	20.2
63 Hz	14.5
80 Hz	16.5
100 Hz	10.1
125 Hz	11.7
160 Hz	22.4
200 Hz	32.5
250 Hz	41.3
315 Hz	46.0
400 Hz	50.6
500 Hz	55.1
630 Hz	60.0
800 Hz	62.6
1000 Hz	63.9
1250 Hz	64.0
1600 Hz	64.9
2000 Hz	60.9
2500 Hz	47.4
3150 Hz	45.1
4000 Hz	48.5
5000 Hz	53.2
6300 Hz	55.5

TL-93-064

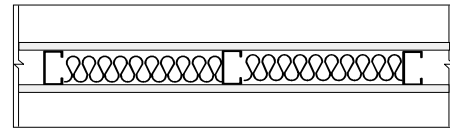
	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	AX	steel	M1	AX
thickness mm	13	65	65	13
gauge		25		
spacing mm		406		
surface density kg/m <sup>2</sup>	10.0		2.3	9.9
linear density kg/m		0.5		
total weight kg	74.1	13.0	17.4	73.7
fastener spacing - edge mm	305			305
fastener spacing - field mm	305			305
fastener top track pattern	c			c
fastener base track pattern	c			c
stud attached to top track		yes		
double header				
orientation	vertical			vertical

TL-93-064  
STC 36



Element	Description:
1	single layer of 13 mm type X gypsum board
2	65 mm steel studs at 406 mm on centre
3	65 mm of mineral fibre insulation in cavity
4	single layer of 13 mm type X gypsum board

G13\_SS65(406)\_MFB65\_G13

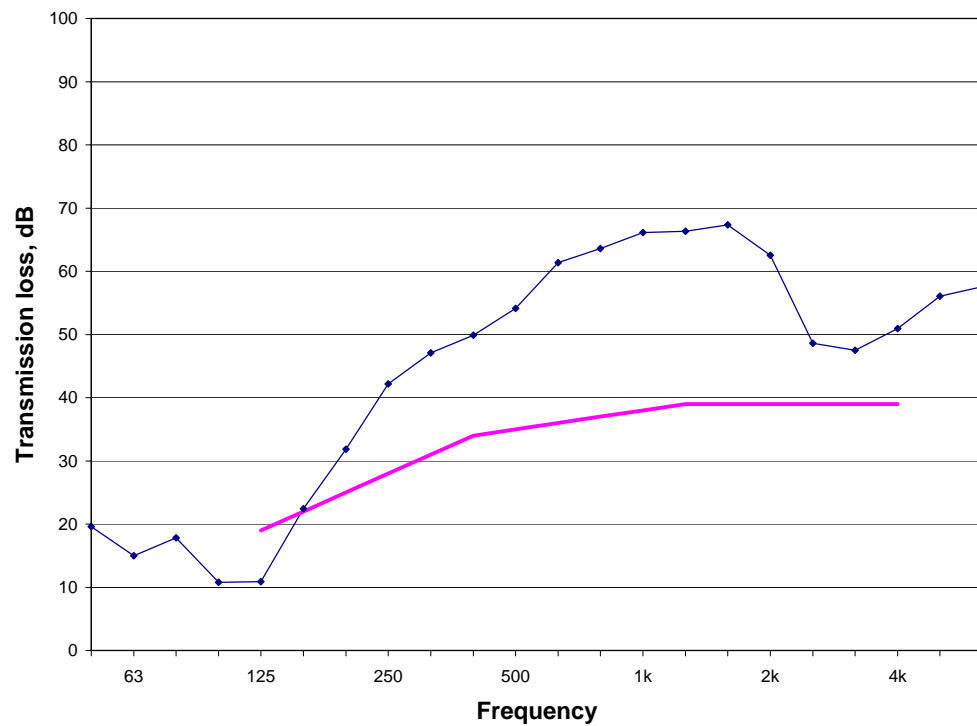


TestID	TL-93-067
STC	35
50 Hz	19.6
63 Hz	15.0
80 Hz	17.8
100 Hz	10.8
125 Hz	10.9
160 Hz	22.4
200 Hz	31.8
250 Hz	42.2
315 Hz	47.1
400 Hz	49.9
500 Hz	54.1
630 Hz	61.4
800 Hz	63.6
1000 Hz	66.2
1250 Hz	66.3
1600 Hz	67.4
2000 Hz	62.5
2500 Hz	48.6
3150 Hz	47.5
4000 Hz	50.9
5000 Hz	56.0
6300 Hz	57.6

TL-93-067

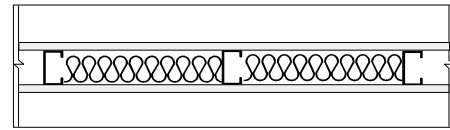
	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	AX	steel	M2	AX
thickness mm	13	65	65	13
gauge		25		
spacing mm		406		
surface density kg/m <sup>2</sup>	10.1		2.9	9.9
linear density kg/m		0.5		
total weight kg	74.7	13.0	21.6	73.7
fastener spacing - edge mm	305			305
fastener spacing - field mm	305			305
fastener top track pattern	c			c
fastener base track pattern	c			c
stud attached to top track		yes		
double header				
orientation	vertical			vertical

TL-93-067  
STC 35



G13\_SS65(406)\_MFB65\_G13

Element	Description:
1	single layer of 13 mm gypsum board
2	65 mm steel studs at 406 mm on centre
3	65 mm of mineral fibre insulation in cavity
4	single layer of 13 mm gypsum board

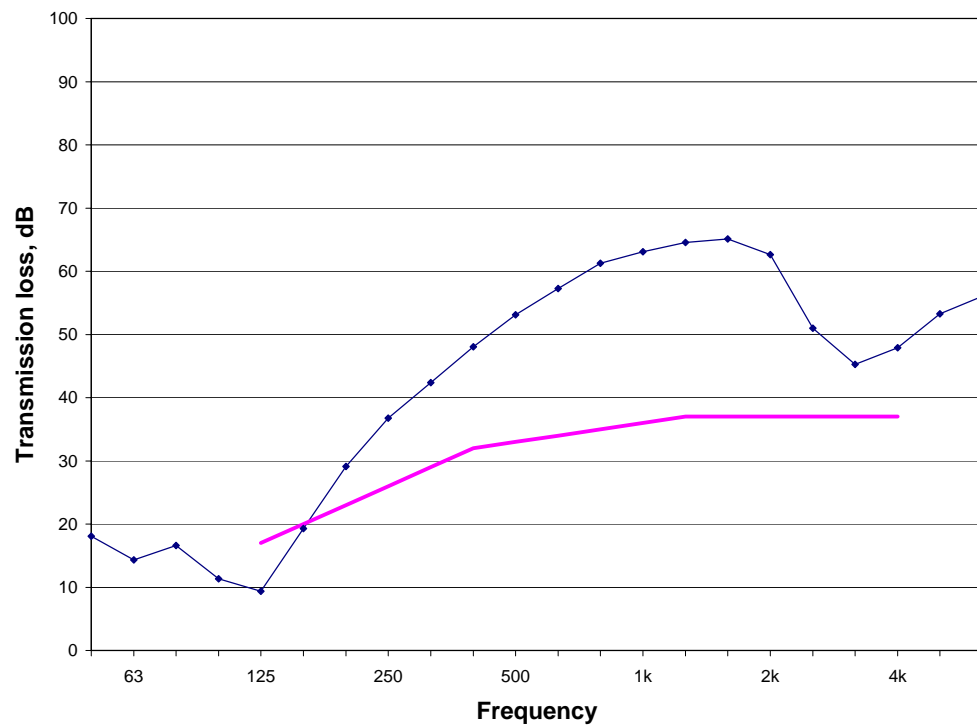


TestID	TL-93-069
STC	33
50 Hz	18.1
63 Hz	14.3
80 Hz	16.6
100 Hz	11.3
125 Hz	9.4
160 Hz	19.3
200 Hz	29.1
250 Hz	36.7
315 Hz	42.4
400 Hz	48.1
500 Hz	53.1
630 Hz	57.2
800 Hz	61.3
1000 Hz	63.1
1250 Hz	64.6
1600 Hz	65.1
2000 Hz	62.6
2500 Hz	51.0
3150 Hz	45.3
4000 Hz	47.9
5000 Hz	53.3
6300 Hz	56.1

TL-93-069

	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	B	steel	M1	B
thickness mm	13	65	65	13
gauge		25		
spacing mm		406		
surface density kg/m <sup>2</sup>	8.2		2.3	8.3
linear density kg/m		0.5		
total weight kg	60.8	13.0	17.4	61.4
fastener spacing - edge mm	305			305
fastener spacing - field mm	305			305
fastener top track pattern	d			d
fastener base track pattern	d			d
stud attached to top track		yes		
double header				
orientation	vertical			vertical

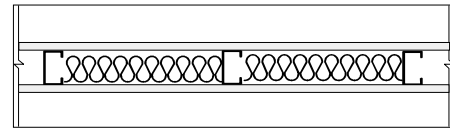
TL-93-069  
STC 33





G13\_SS65(406)\_MFB65\_G13

Element	Description:
1	single layer of 13 mm gypsum board
2	65 mm steel studs at 406 mm on centre
3	65 mm of mineral fibre insulation in cavity
4	single layer of 13 mm gypsum board

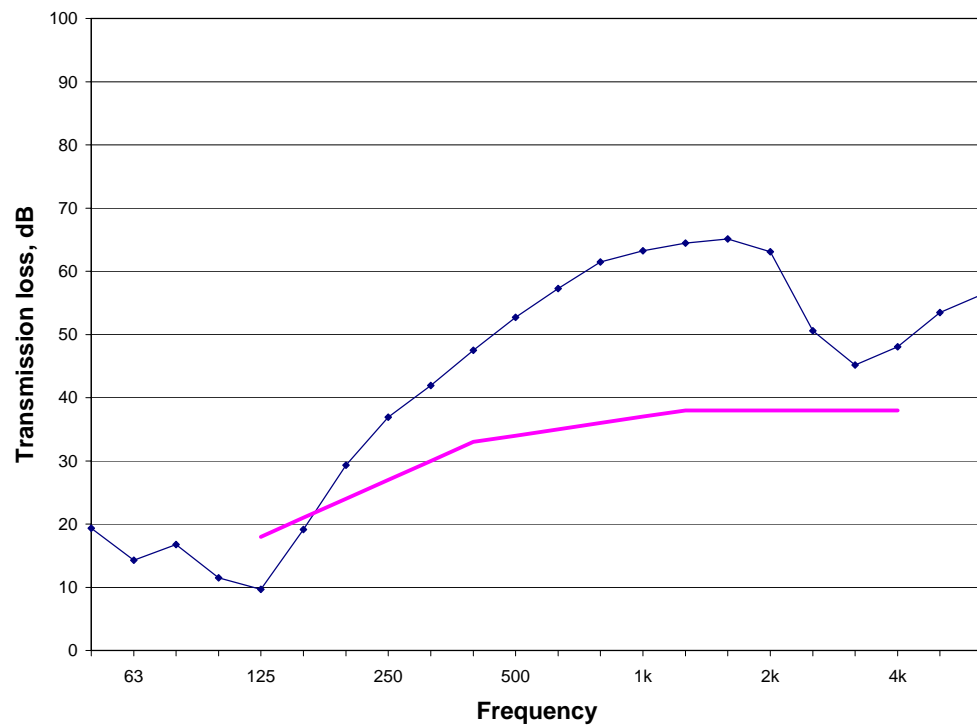


TestID	TL-93-070
STC	34
50 Hz	19.3
63 Hz	14.3
80 Hz	16.7
100 Hz	11.5
125 Hz	9.7
160 Hz	19.1
200 Hz	29.3
250 Hz	36.9
315 Hz	41.9
400 Hz	47.5
500 Hz	52.7
630 Hz	57.2
800 Hz	61.5
1000 Hz	63.2
1250 Hz	64.5
1600 Hz	65.1
2000 Hz	63.1
2500 Hz	50.6
3150 Hz	45.2
4000 Hz	48.0
5000 Hz	53.5
6300 Hz	56.3

TL-93-070

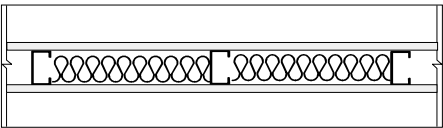
	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	B	steel	M1	B
thickness mm	13	65	65	13
gauge		25		
spacing mm		406		
surface density kg/m <sup>2</sup>	8.2		2.3	8.3
linear density kg/m		0.5		
total weight kg	60.8	13.0	17.4	61.4
fastener spacing - edge mm	305			305
fastener spacing - field mm	305			305
fastener top track pattern	c			c
fastener base track pattern	c			c
stud attached to top track		yes		
double header				
orientation	vertical			vertical

TL-93-070  
STC 34



G13\_SS65(406)\_MFR57\_G13

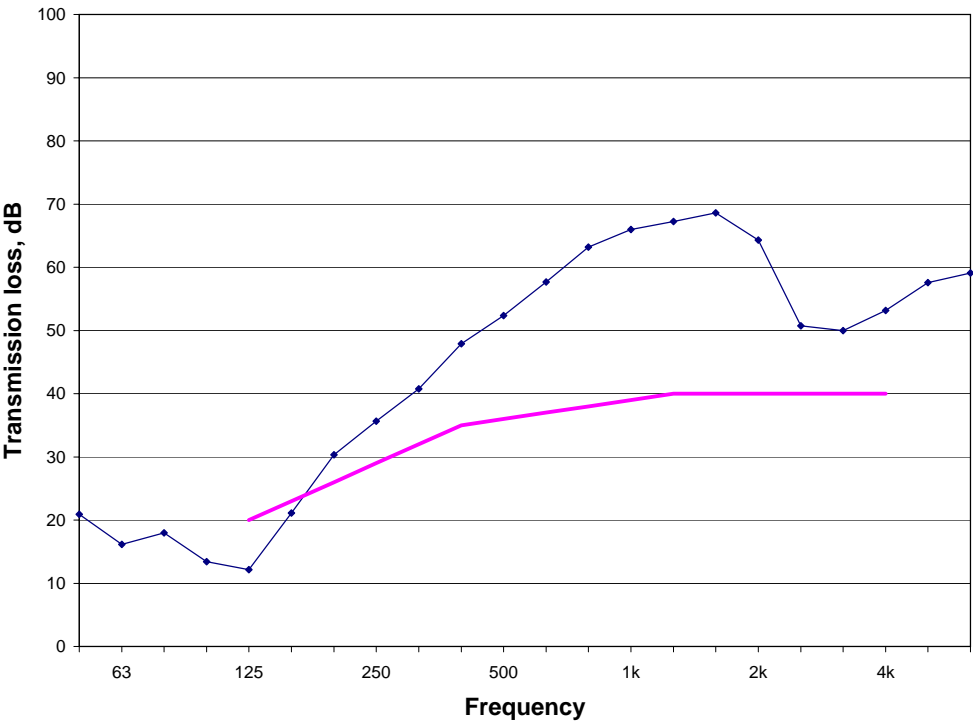
Element	Description:
1	single layer of 13 mm gypsum board
2	65 mm steel studs at 406 mm on centre
3	57 mm of mineral fibre insulation in cavity
4	single layer of 13 mm gypsum board



TestID	TL-93-068
STC	36
50 Hz	20.9
63 Hz	16.2
80 Hz	18.0
100 Hz	13.4
125 Hz	12.1
160 Hz	21.1
200 Hz	30.4
250 Hz	35.6
315 Hz	40.8
400 Hz	47.9
500 Hz	52.4
630 Hz	57.7
800 Hz	63.2
1000 Hz	66.0
1250 Hz	67.3
1600 Hz	68.6
2000 Hz	64.3
2500 Hz	50.8
3150 Hz	50.0
4000 Hz	53.2
5000 Hz	57.5
6300 Hz	59.1

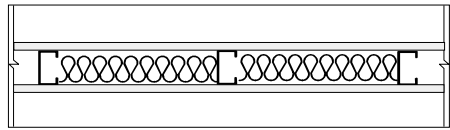
TL-93-068	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	B	steel	M3	B
thickness mm	13	65	57	13
gauge		25		
spacing mm		406		
surface density kg/m <sup>2</sup>	8.2		5.3	8.3
linear density kg/m		0.5		
total weight kg	60.8	13.0	39.4	61.4
fastener spacing - edge mm	305			305
fastener spacing - field mm	305			305
fastener top track pattern	c			c
fastener base track pattern	c			c
stud attached to top track		yes		
double header				
orientation	vertical			vertical

TL-93-068  
STC 36



Element	Description:
1	single layer of 13 mm type X gypsum board
2	65 mm steel studs at 610 mm on centre
3	65 mm of glass fibre insulation in cavity
4	single layer of 13 mm type X gypsum board

G13\_SS65(610)\_GFB65\_G13

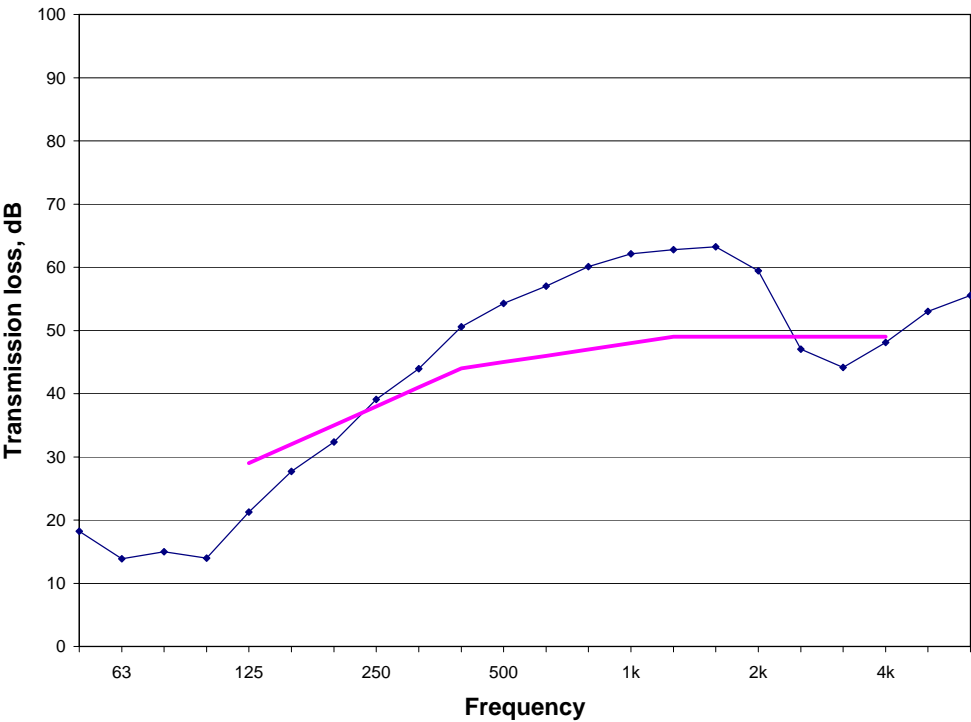


TestID	TL-93-038
STC	45
50 Hz	18.2
63 Hz	13.9
80 Hz	15.0
100 Hz	14.0
125 Hz	21.3
160 Hz	27.7
200 Hz	32.4
250 Hz	39.1
315 Hz	44.0
400 Hz	50.6
500 Hz	54.3
630 Hz	57.0
800 Hz	60.1
1000 Hz	62.1
1250 Hz	62.8
1600 Hz	63.3
2000 Hz	59.4
2500 Hz	47.0
3150 Hz	44.1
4000 Hz	48.1
5000 Hz	53.0
6300 Hz	55.5

TL-93-038

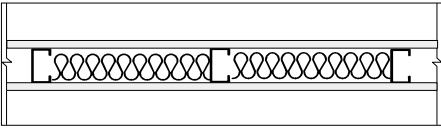
	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	AX	steel	G1	AX
thickness mm	13	65	65	13
gauge		25		
spacing mm		610		
surface density kg/m <sup>2</sup>	10.0		0.8	10.1
linear density kg/m		0.5		
total weight kg	74.3	9.8	5.9	75.2
fastener spacing - edge mm	305			305
fastener spacing - field mm	305			305
fastener top track pattern	c			c
fastener base track pattern	c			c
stud attached to top track		yes		
double header				
orientation	vertical			vertical

TL-93-038  
STC 45



Element	Description:
1	single layer of 13 mm gypsum board
2	65 mm steel studs at 610 mm on centre
3	65 mm of glass fibre insulation in cavity
4	single layer of 13 mm gypsum board

G13\_SS65(610)\_GFB65\_G13

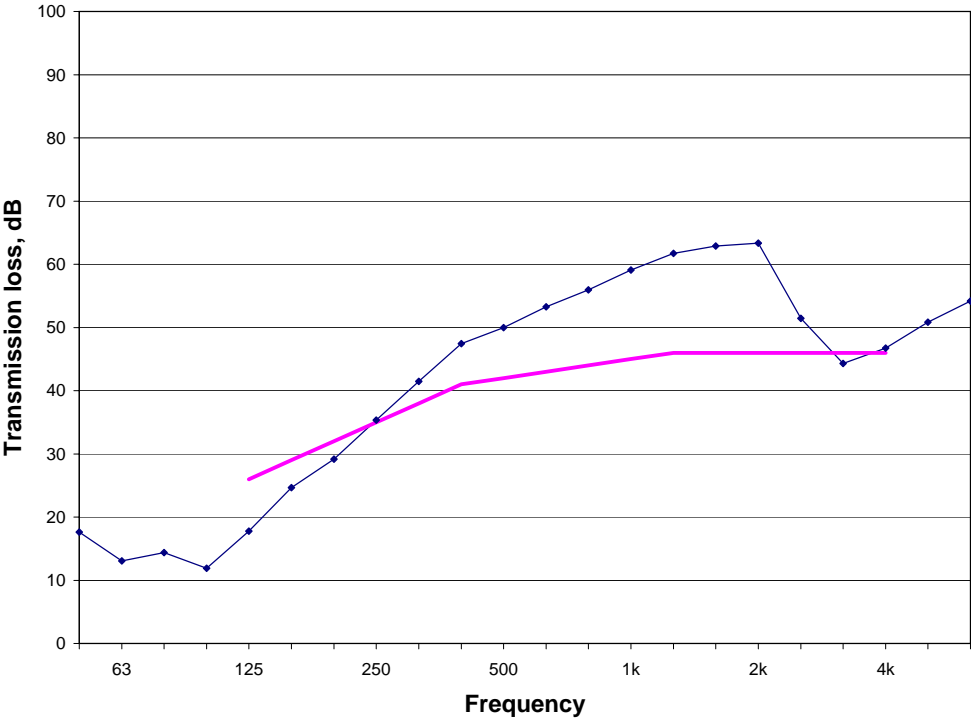


TestID	TL-93-041
STC	42
50 Hz	17.6
63 Hz	13.1
80 Hz	14.4
100 Hz	11.9
125 Hz	17.8
160 Hz	24.6
200 Hz	29.1
250 Hz	35.3
315 Hz	41.5
400 Hz	47.5
500 Hz	50.0
630 Hz	53.3
800 Hz	56.0
1000 Hz	59.1
1250 Hz	61.7
1600 Hz	62.9
2000 Hz	63.4
2500 Hz	51.5
3150 Hz	44.3
4000 Hz	46.7
5000 Hz	50.8
6300 Hz	54.2

TL-93-041

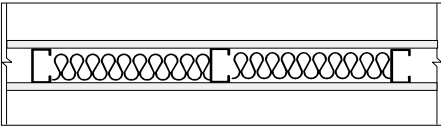
	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	B	steel	G1	B
thickness mm	13	65	65	13
gauge		25		
spacing mm		610		
surface density kg/m <sup>2</sup>	8.3		0.8	8.3
linear density kg/m		0.5		
total weight kg	61.7	9.9	5.9	61.3
fastener spacing - edge mm	305			305
fastener spacing - field mm	305			305
fastener top track pattern	d			d
fastener base track pattern	d			d
stud attached to top track				
double header				
orientation	vertical			vertical

TL-93-041  
STC 42



Element	Description:
1	single layer of 13 mm gypsum board
2	65 mm steel studs at 610 mm on centre
3	65 mm of glass fibre insulation in cavity
4	single layer of 13 mm gypsum board

G13\_SS65(610)\_GFB65\_G13

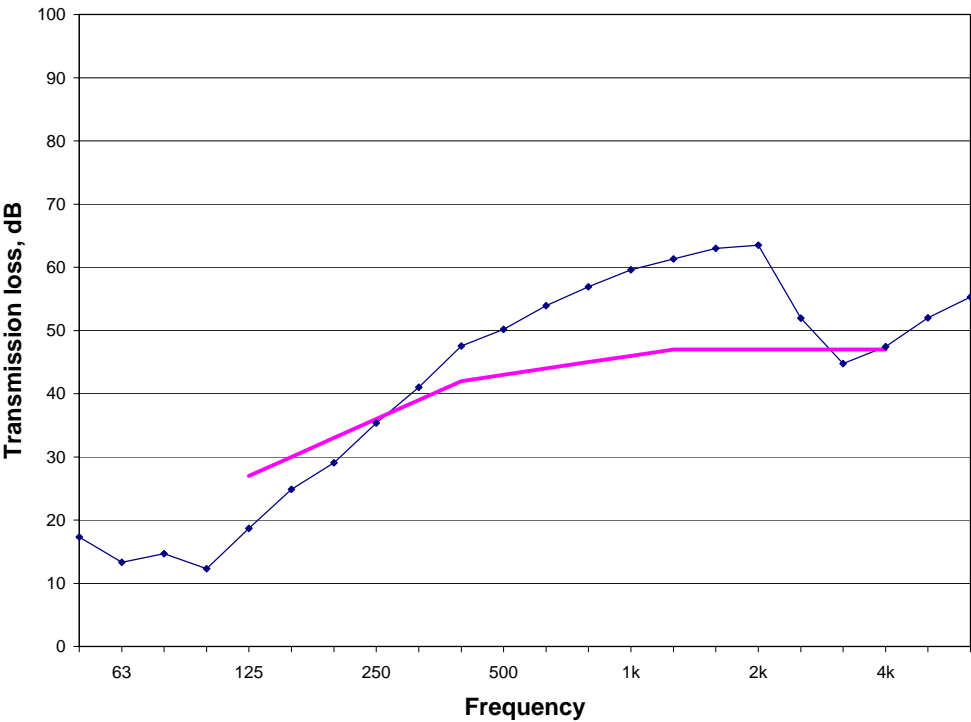


TestID	TL-93-043
STC	43
50 Hz	17.3
63 Hz	13.3
80 Hz	14.7
100 Hz	12.3
125 Hz	18.7
160 Hz	24.9
200 Hz	29.1
250 Hz	35.3
315 Hz	41.0
400 Hz	47.5
500 Hz	50.2
630 Hz	53.9
800 Hz	56.9
1000 Hz	59.6
1250 Hz	61.3
1600 Hz	63.0
2000 Hz	63.5
2500 Hz	52.0
3150 Hz	44.8
4000 Hz	47.4
5000 Hz	52.0
6300 Hz	55.3

TL-93-043

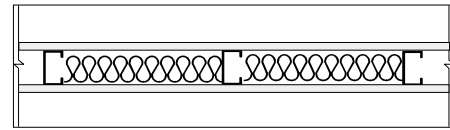
	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	B	steel	G1	B
thickness mm	13	65	65	13
gauge		25		
spacing mm		610		
surface density kg/m <sup>2</sup>	8.3		0.8	8.3
linear density kg/m		0.5		
total weight kg	61.7	9.9	5.9	61.3
fastener spacing - edge mm	305			305
fastener spacing - field mm	305			305
fastener top track pattern	c			c
fastener base track pattern	c			c
stud attached to top track		yes		
double header				
orientation	vertical			vertical

TL-93-043  
STC 43



Element	Description:
1	single layer of 13 mm gypsum board
2	65 mm steel studs at 610 mm on centre
3	65 mm of glass fibre insulation in cavity
4	single layer of 13 mm gypsum board

G13\_SS65(610)\_GFB65\_G13

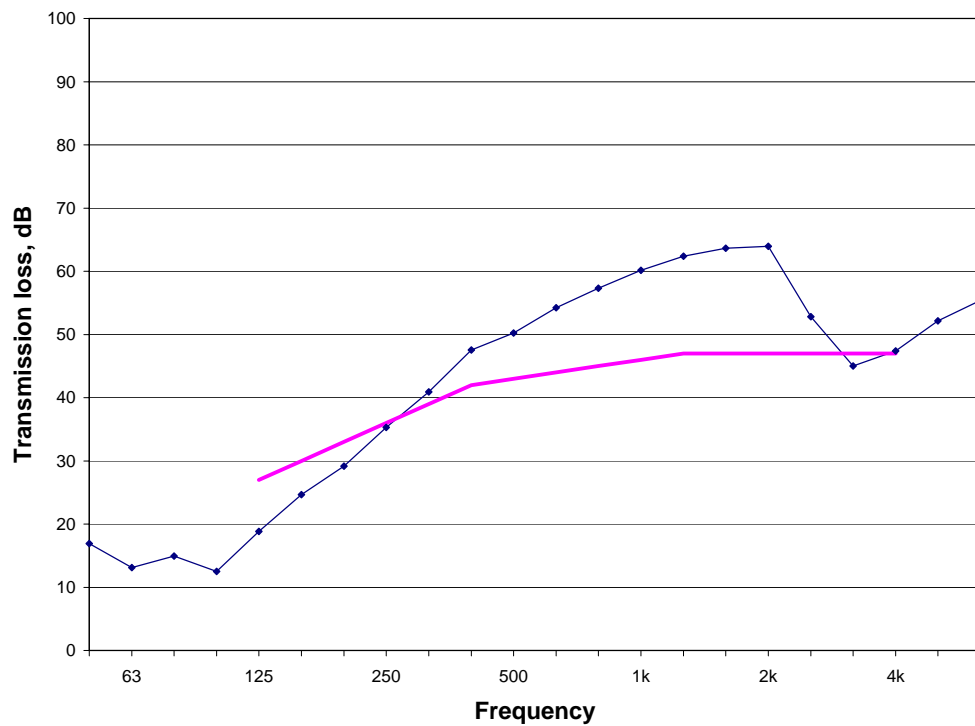


TestID	TL-93-044
STC	43
50 Hz	16.9
63 Hz	13.1
80 Hz	14.9
100 Hz	12.5
125 Hz	18.8
160 Hz	24.6
200 Hz	29.2
250 Hz	35.3
315 Hz	40.9
400 Hz	47.5
500 Hz	50.2
630 Hz	54.2
800 Hz	57.3
1000 Hz	60.1
1250 Hz	62.4
1600 Hz	63.6
2000 Hz	63.9
2500 Hz	52.8
3150 Hz	45.0
4000 Hz	47.4
5000 Hz	52.1
6300 Hz	55.4

TL-93-044

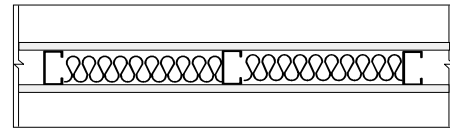
	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	B	steel	G1	B
thickness mm	13	65	65	13
gauge		25		
spacing mm		610		
surface density kg/m <sup>2</sup>	8.3		0.8	8.3
linear density kg/m		0.5		
total weight kg	61.7	9.9	5.9	61.3
fastener spacing - edge mm	305			305
fastener spacing - field mm	305			305
fastener top track pattern	a			a
fastener base track pattern	a			a
stud attached to top track		yes		
double header				
orientation	vertical			vertical

TL-93-044  
STC 43



Element	Description:
1	single layer of 13 mm type X gypsum board
2	65 mm steel studs at 610 mm on centre
3	65 mm of mineral fibre insulation in cavity
4	single layer of 13 mm type X gypsum board

G13\_SS65(610)\_MFB65\_G13

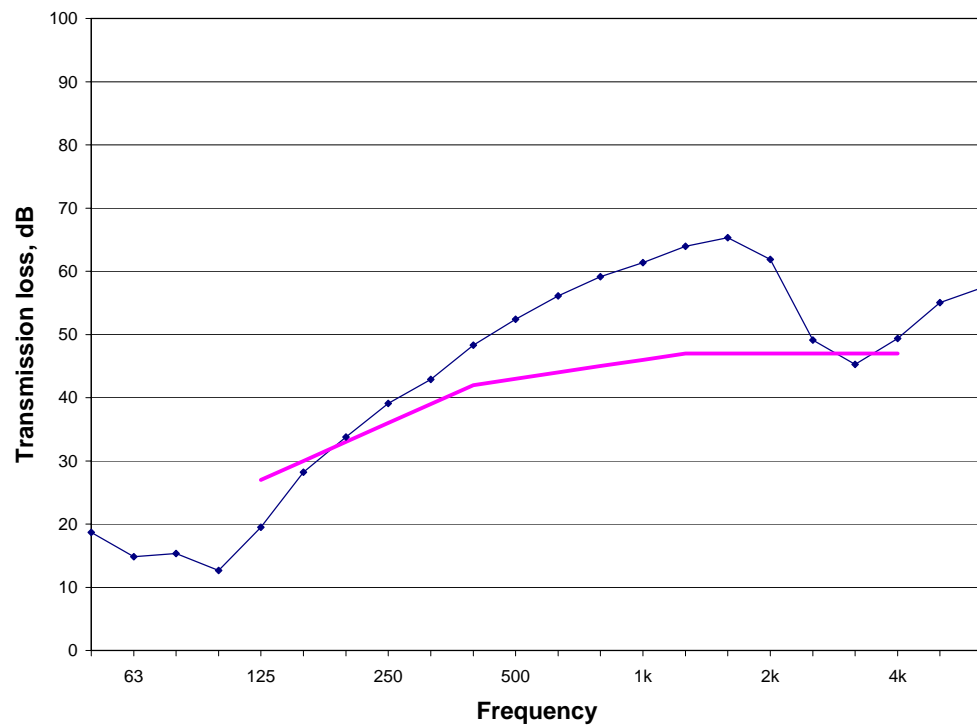


TestID	TL-93-047
STC	43
50 Hz	18.7
63 Hz	14.8
80 Hz	15.3
100 Hz	12.7
125 Hz	19.5
160 Hz	28.2
200 Hz	33.8
250 Hz	39.1
315 Hz	42.9
400 Hz	48.3
500 Hz	52.4
630 Hz	56.1
800 Hz	59.1
1000 Hz	61.4
1250 Hz	63.9
1600 Hz	65.3
2000 Hz	61.9
2500 Hz	49.1
3150 Hz	45.3
4000 Hz	49.4
5000 Hz	55.0
6300 Hz	57.4

TL-93-047

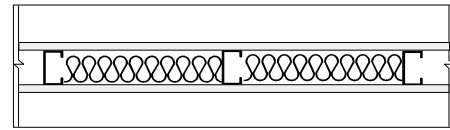
	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	AX	steel	M1	AX
thickness mm	13	65	65	13
gauge		25		
spacing mm		610		
surface density kg/m <sup>2</sup>	10.0		2.2	10.0
linear density kg/m		0.5		
total weight kg	74.1	9.9	16.6	74.0
fastener spacing - edge mm	305			305
fastener spacing - field mm	305			305
fastener top track pattern	c			c
fastener base track pattern	c			c
stud attached to top track		yes		
double header				
orientation	vertical			vertical

TL-93-047  
STC 43



Element	Description:
1	single layer of 13 mm type X gypsum board
2	90 mm steel studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	single layer of 13 mm type X gypsum board

G13\_SS90(406)\_GFB90\_G13

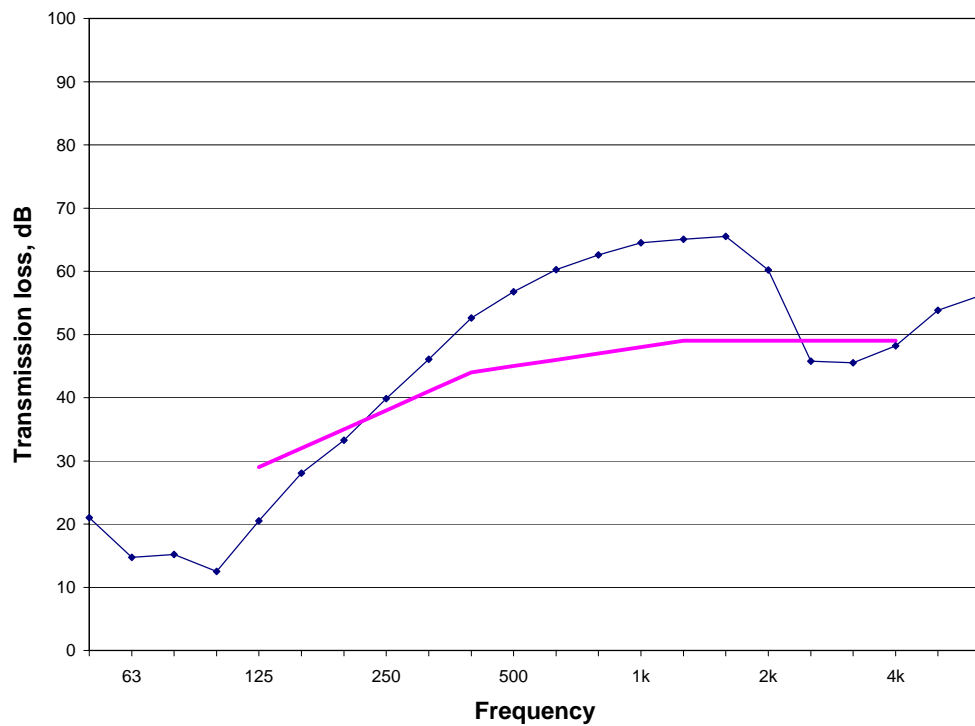


TestID	TL-92-422
STC	45
50 Hz	21.0
63 Hz	14.7
80 Hz	15.2
100 Hz	12.5
125 Hz	20.5
160 Hz	28.1
200 Hz	33.3
250 Hz	39.8
315 Hz	46.1
400 Hz	52.6
500 Hz	56.8
630 Hz	60.2
800 Hz	62.6
1000 Hz	64.5
1250 Hz	65.1
1600 Hz	65.5
2000 Hz	60.2
2500 Hz	45.8
3150 Hz	45.5
4000 Hz	48.2
5000 Hz	53.8
6300 Hz	56.2

TL-92-422

	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	AX	steel	G1	AX
thickness mm	13	90	90	13
gauge		25		
spacing mm		406		
surface density kg/m <sup>2</sup>	10.0		1.1	10.0
linear density kg/m		0.6		
total weight kg	74.3	15.8	8.2	74.2
fastener spacing - edge mm	305			305
fastener spacing - field mm	305			305
fastener top track pattern	c			c
fastener base track pattern	c			c
stud attached to top track		yes		
double header				
orientation	vertical			vertical

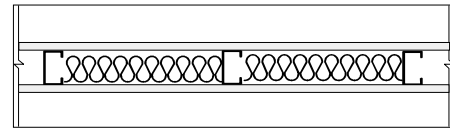
TL-92-422  
STC 45





Element	Description:
1	single layer of 13 mm type X gypsum board
2	90 mm steel studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	single layer of 13 mm type X gypsum board

G13\_SS90(406)\_GFB90\_G13

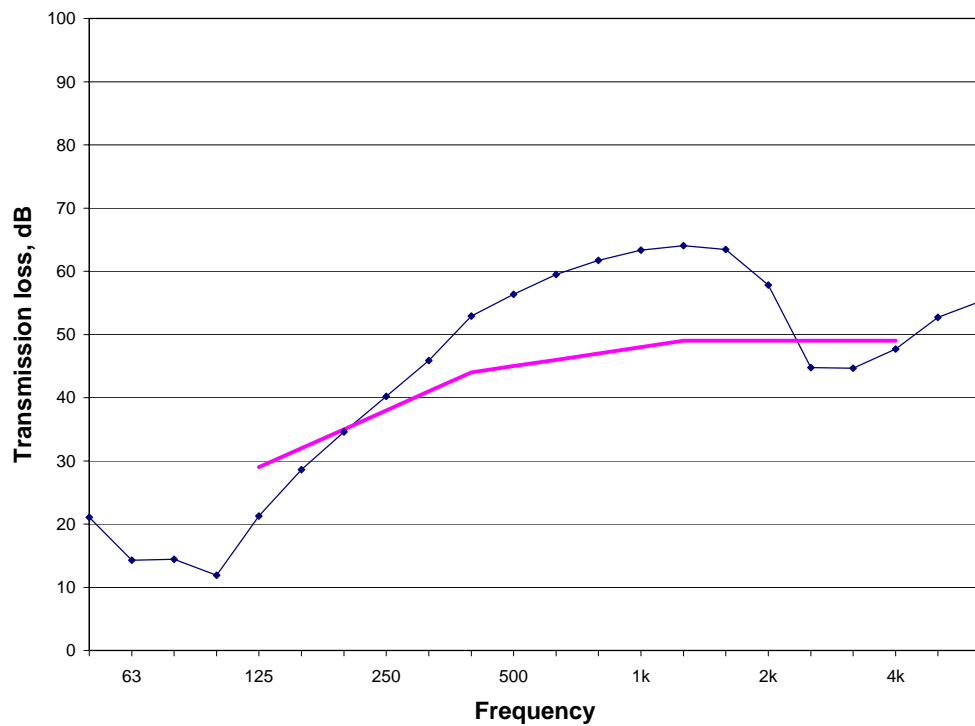


TestID	TL-92-425
STC	45
50 Hz	21.1
63 Hz	14.3
80 Hz	14.4
100 Hz	11.9
125 Hz	21.3
160 Hz	28.6
200 Hz	34.6
250 Hz	40.2
315 Hz	45.9
400 Hz	52.9
500 Hz	56.4
630 Hz	59.5
800 Hz	61.7
1000 Hz	63.3
1250 Hz	64.1
1600 Hz	63.4
2000 Hz	57.8
2500 Hz	44.7
3150 Hz	44.6
4000 Hz	47.7
5000 Hz	52.7
6300 Hz	55.2

TL-92-425

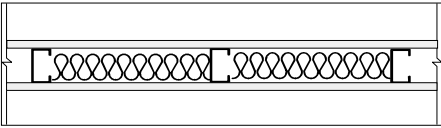
	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	BX	steel	G1	BX
thickness mm	13	90	90	13
gauge		25		
spacing mm		406		
surface density kg/m <sup>2</sup>	9.7		1.1	9.8
linear density kg/m		0.6		
total weight kg	72.3	16.6	8.2	72.6
fastener spacing - edge mm	305			305
fastener spacing - field mm	305			305
fastener top track pattern	c			c
fastener base track pattern	c			c
stud attached to top track		yes		
double header				
orientation	vertical			vertical

TL-92-425  
STC 45



Element	Description:
1	single layer of 13 mm type X gypsum board
2	90 mm steel studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	single layer of 13 mm type X gypsum board

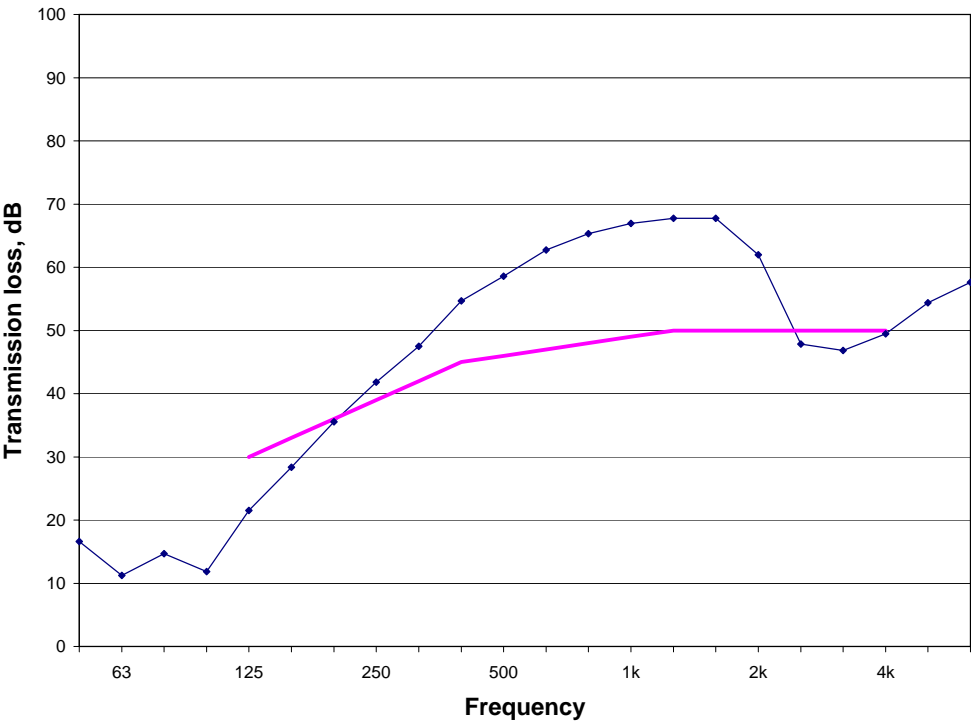
G13\_SS90(406)\_GFB90\_G13



TestID	TL-93-344
STC	46
50 Hz	16.6
63 Hz	11.3
80 Hz	14.7
100 Hz	11.8
125 Hz	21.5
160 Hz	28.4
200 Hz	35.6
250 Hz	41.8
315 Hz	47.5
400 Hz	54.7
500 Hz	58.6
630 Hz	62.7
800 Hz	65.3
1000 Hz	66.9
1250 Hz	67.7
1600 Hz	67.8
2000 Hz	62.0
2500 Hz	47.9
3150 Hz	46.8
4000 Hz	49.4
5000 Hz	54.4
6300 Hz	57.6

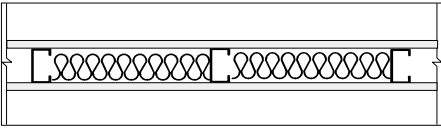
TL-93-344	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	AX	steel	G1	AX
thickness mm	13	90	90	13
gauge		25		
spacing mm		406		
surface density kg/m <sup>2</sup>	10.2		1.1	10.2
linear density kg/m		0.6		
total weight kg	75.6	16.2	8.0	76.1
fastener spacing - edge mm	305			305
fastener spacing - field mm	305			305
fastener top track pattern	d			d
fastener base track pattern	a			a
stud attached to top track				
double header				
orientation	vertical			vertical

TL-93-344  
STC 46



Element	Description:
1	single layer of 13 mm gypsum board
2	90 mm steel studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	single layer of 13 mm gypsum board

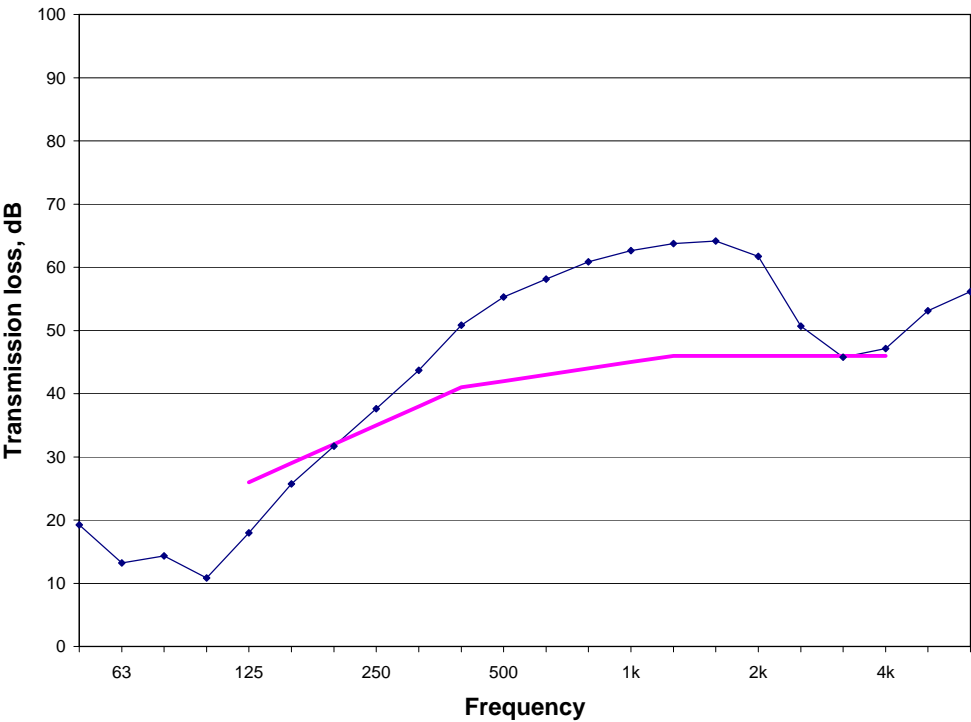
G13\_SS90(406)\_GFB90\_G13



TestID	TL-92-428
STC	42
50 Hz	19.2
63 Hz	13.2
80 Hz	14.3
100 Hz	10.8
125 Hz	18.0
160 Hz	25.7
200 Hz	31.7
250 Hz	37.6
315 Hz	43.7
400 Hz	50.8
500 Hz	55.3
630 Hz	58.1
800 Hz	60.9
1000 Hz	62.6
1250 Hz	63.7
1600 Hz	64.1
2000 Hz	61.7
2500 Hz	50.7
3150 Hz	45.8
4000 Hz	47.1
5000 Hz	53.1
6300 Hz	56.2

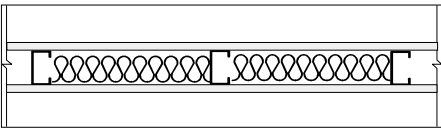
TL-92-428	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	B	steel	G1	B
thickness mm	13	90	90	13
gauge		25		
spacing mm		406		
surface density kg/m <sup>2</sup>	8.2		1.1	8.2
linear density kg/m		0.6		
total weight kg	60.9	16.6	8.2	61.2
fastener spacing - edge mm	305			305
fastener spacing - field mm	305			305
fastener top track pattern	c			c
fastener base track pattern	c			c
stud attached to top track		yes		
double header				
orientation	vertical			vertical

TL-92-428  
STC 42



G13\_SS90(406)\_GFB90\_G13

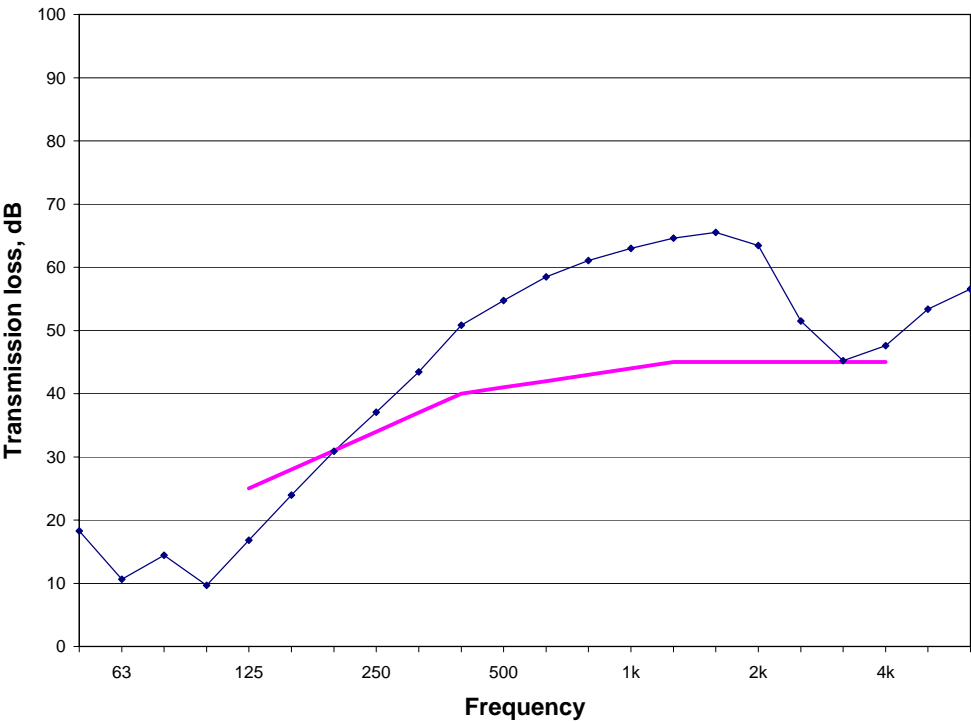
Element	Description:
1	single layer of 13 mm gypsum board
2	90 mm steel studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	single layer of 13 mm gypsum board



TestID	TL-93-347
STC	41
50 Hz	18.3
63 Hz	10.6
80 Hz	14.4
100 Hz	9.7
125 Hz	16.8
160 Hz	24.0
200 Hz	30.9
250 Hz	37.0
315 Hz	43.5
400 Hz	50.9
500 Hz	54.7
630 Hz	58.5
800 Hz	61.0
1000 Hz	63.0
1250 Hz	64.6
1600 Hz	65.5
2000 Hz	63.4
2500 Hz	51.5
3150 Hz	45.2
4000 Hz	47.6
5000 Hz	53.4
6300 Hz	56.6

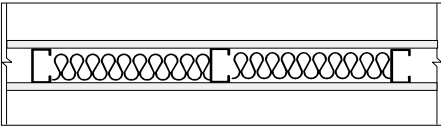
TL-93-347	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	B	steel	G1	B
thickness mm	13	90	90	13
gauge		25		
spacing mm		406		
surface density kg/m <sup>2</sup>	8.3		1.1	8.2
linear density kg/m		0.6		
total weight kg	61.7	16.2	8.0	61.2
fastener spacing - edge mm	305			305
fastener spacing - field mm	305			305
fastener top track pattern	d			d
fastener base track pattern	a			a
stud attached to top track				
double header				
orientation	vertical			vertical

TL-93-347  
STC 41



Element	Description:
1	single layer of 13 mm gypsum board
2	90 mm steel studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	single layer of 13 mm gypsum board

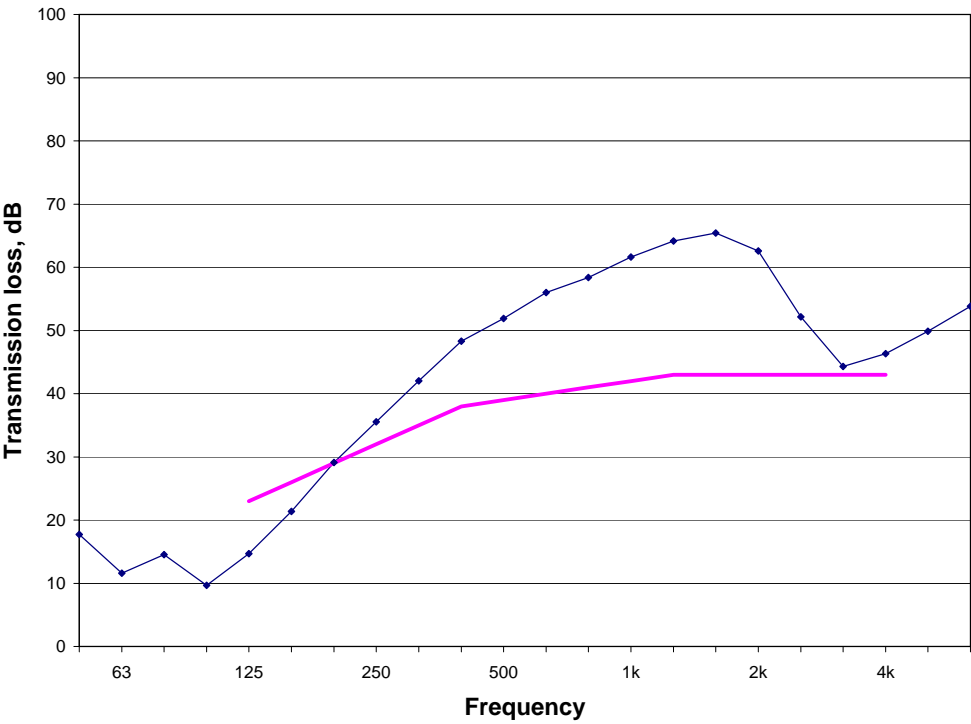
G13\_SS90(406)\_GFB90\_G13



TestID	TL-93-361
STC	39
50 Hz	17.7
63 Hz	11.6
80 Hz	14.5
100 Hz	9.7
125 Hz	14.7
160 Hz	21.4
200 Hz	29.1
250 Hz	35.5
315 Hz	42.0
400 Hz	48.3
500 Hz	51.9
630 Hz	56.0
800 Hz	58.4
1000 Hz	61.6
1250 Hz	64.2
1600 Hz	65.4
2000 Hz	62.6
2500 Hz	52.1
3150 Hz	44.3
4000 Hz	46.3
5000 Hz	49.9
6300 Hz	53.8

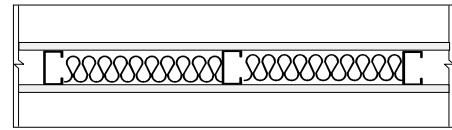
TL-93-361	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	BL	steel	G1	BL
thickness mm	13	90	90	13
gauge		25		
spacing mm		406		
surface density kg/m <sup>2</sup>	7.3		1.0	7.3
linear density kg/m		0.5		
total weight kg	54.3	14.1	7.8	53.9
fastener spacing - edge mm	305			305
fastener spacing - field mm	305			305
fastener top track pattern	d			d
fastener base track pattern	a			a
stud attached to top track				
double header				
orientation	vertical			vertical

TL-93-361  
STC 39



Element	Description:
1	single layer of 13 mm gypsum board
2	90 mm steel studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	single layer of 13 mm gypsum board

G13\_SS90(406)\_GFB90\_G13

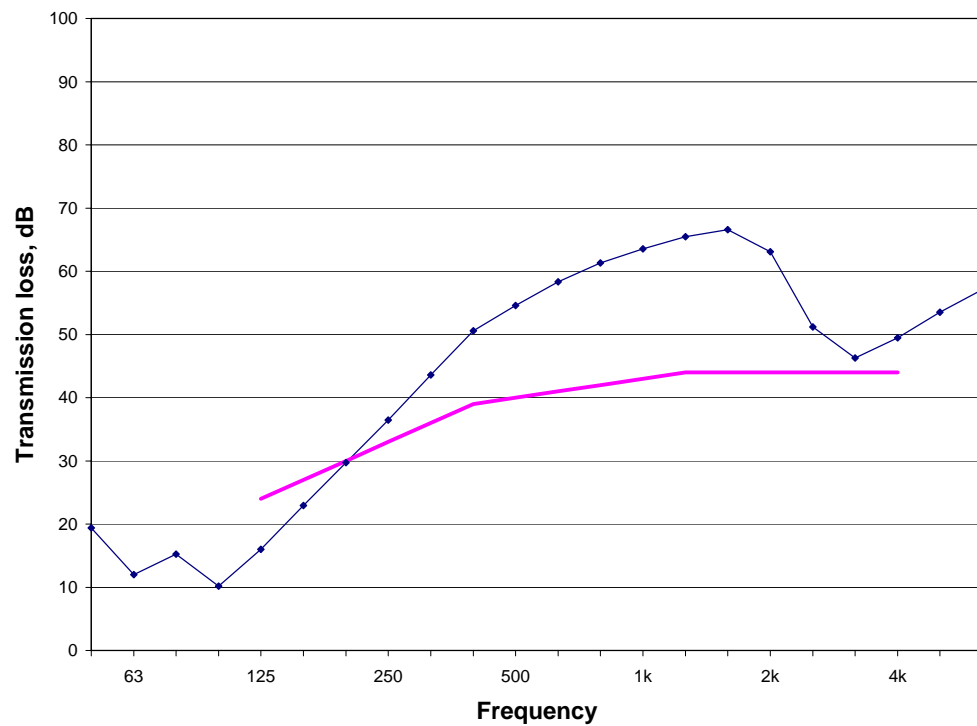


TestID	TL-93-365
STC	40
50 Hz	19.4
63 Hz	12.0
80 Hz	15.2
100 Hz	10.2
125 Hz	16.0
160 Hz	22.9
200 Hz	29.7
250 Hz	36.5
315 Hz	43.6
400 Hz	50.6
500 Hz	54.6
630 Hz	58.3
800 Hz	61.3
1000 Hz	63.5
1250 Hz	65.5
1600 Hz	66.6
2000 Hz	63.1
2500 Hz	51.2
3150 Hz	46.3
4000 Hz	49.4
5000 Hz	53.5
6300 Hz	57.1

TL-93-365

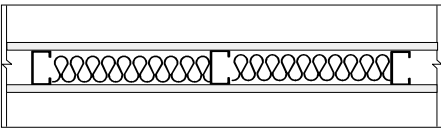
	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	A	steel	G1	A
thickness mm	13	90	90	13
gauge		25		
spacing mm		406		
surface density kg/m <sup>2</sup>	8.0		1.0	7.9
linear density kg/m		0.5		
total weight kg	59.2	14.1	7.8	58.8
fastener spacing - edge mm	305			305
fastener spacing - field mm	305			305
fastener top track pattern	d			d
fastener base track pattern	a			a
stud attached to top track				
double header				
orientation	vertical			vertical

TL-93-365  
STC 40



G13\_SS90(406)\_MFB40\_G13

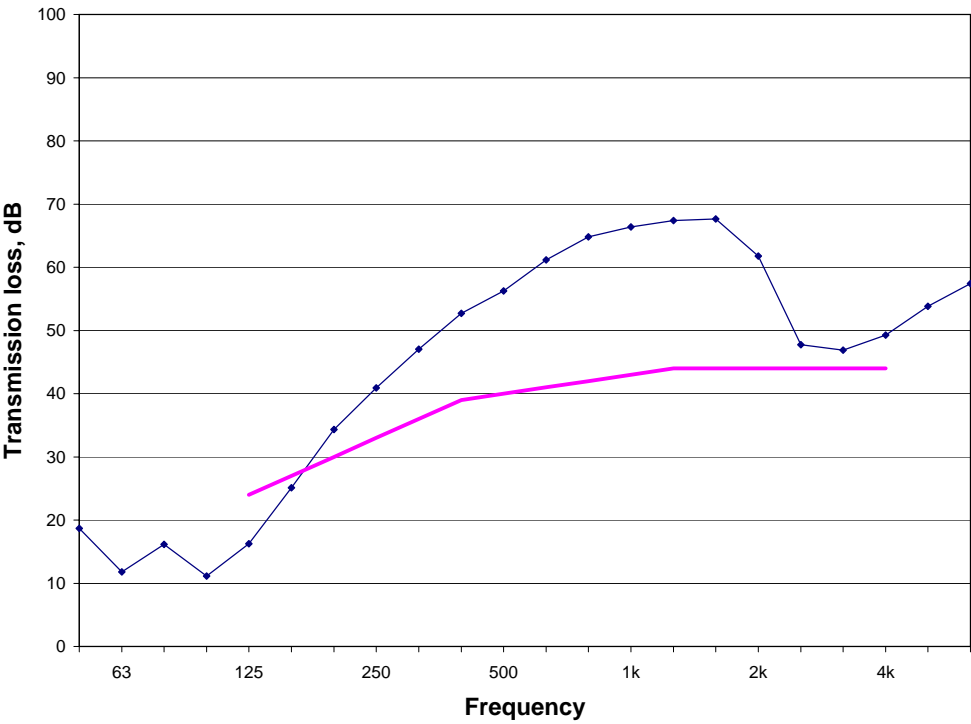
Element	Description:
1	single layer of 13 mm type X gypsum board
2	90 mm steel studs at 406 mm on centre
3	40 mm of mineral fibre insulation in cavity
4	single layer of 13 mm type X gypsum board



TestID	TL-93-343
STC	40
50 Hz	18.7
63 Hz	11.8
80 Hz	16.1
100 Hz	11.2
125 Hz	16.2
160 Hz	25.1
200 Hz	34.3
250 Hz	40.9
315 Hz	47.0
400 Hz	52.7
500 Hz	56.3
630 Hz	61.2
800 Hz	64.8
1000 Hz	66.4
1250 Hz	67.4
1600 Hz	67.6
2000 Hz	61.8
2500 Hz	47.8
3150 Hz	46.9
4000 Hz	49.2
5000 Hz	53.8
6300 Hz	57.4

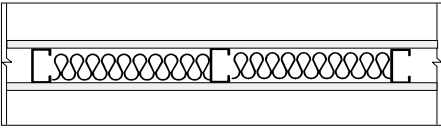
TL-93-343	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	AX	steel	M2	AX
thickness mm	13	90	40	13
gauge		25		
spacing mm		406		
surface density kg/m <sup>2</sup>	10.2		2.1	10.2
linear density kg/m		0.6		
total weight kg	75.6	16.2	15.2	76.1
fastener spacing - edge mm	305			305
fastener spacing - field mm	610			305
fastener top track pattern	d			d
fastener base track pattern	a			a
stud attached to top track				
double header				
orientation	vertical			vertical

TL-93-343  
STC 40



Element	Description:
1	single layer of 13 mm type X gypsum board
2	90 mm steel studs at 406 mm on centre
3	83 mm of mineral fibre insulation in cavity
4	single layer of 13 mm type X gypsum board

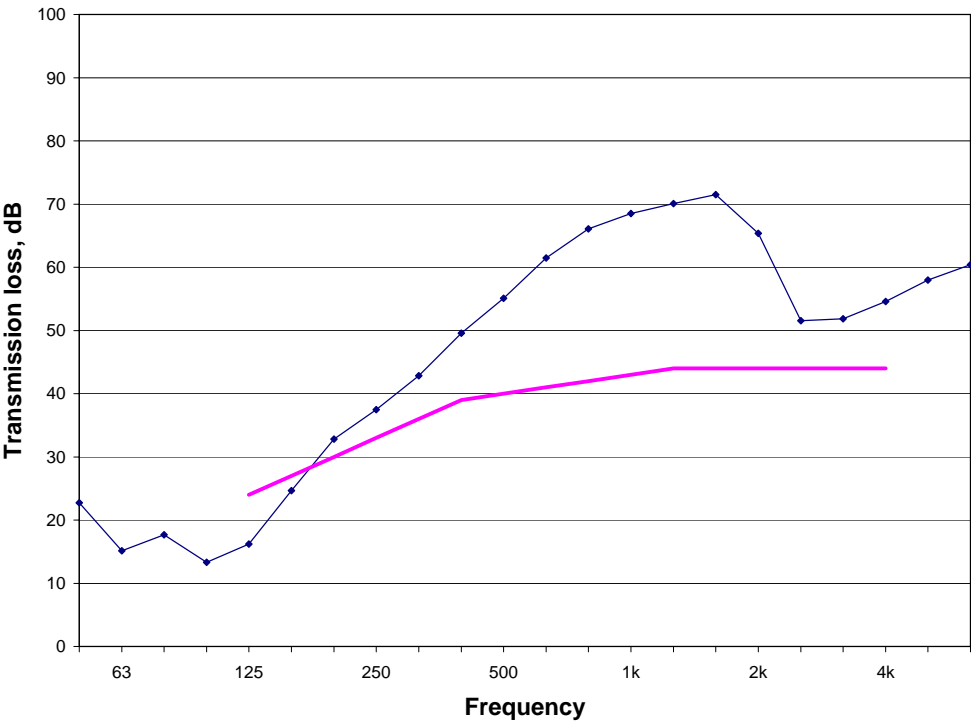
G13\_SS90(406)\_MFB83\_G13



TestID	TL-93-339
STC	40
50 Hz	22.7
63 Hz	15.2
80 Hz	17.7
100 Hz	13.3
125 Hz	16.2
160 Hz	24.7
200 Hz	32.8
250 Hz	37.5
315 Hz	42.8
400 Hz	49.6
500 Hz	55.1
630 Hz	61.5
800 Hz	66.1
1000 Hz	68.5
1250 Hz	70.1
1600 Hz	71.5
2000 Hz	65.4
2500 Hz	51.6
3150 Hz	51.8
4000 Hz	54.6
5000 Hz	58.0
6300 Hz	60.4

TL-93-339	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	AX	steel	M3	AX
thickness mm	13	90	83	13
gauge		25		
spacing mm		406		
surface density kg/m <sup>2</sup>	10.2		8.2	10.1
linear density kg/m		0.6		
total weight kg	75.8	16.2	60.7	75.4
fastener spacing - edge mm	305			305
fastener spacing - field mm	305			305
fastener top track pattern	d			d
fastener base track pattern	a			a
stud attached to top track				
double header				
orientation	vertical			vertical

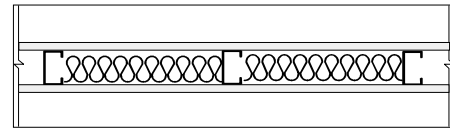
TL-93-339  
STC 40





Element	Description:
1	single layer of 13 mm type X gypsum board
2	90 mm steel studs at 406 mm on centre
3	90 mm of mineral fibre insulation in cavity
4	single layer of 13 mm type X gypsum board

G13\_SS90(406)\_MFB90\_G13

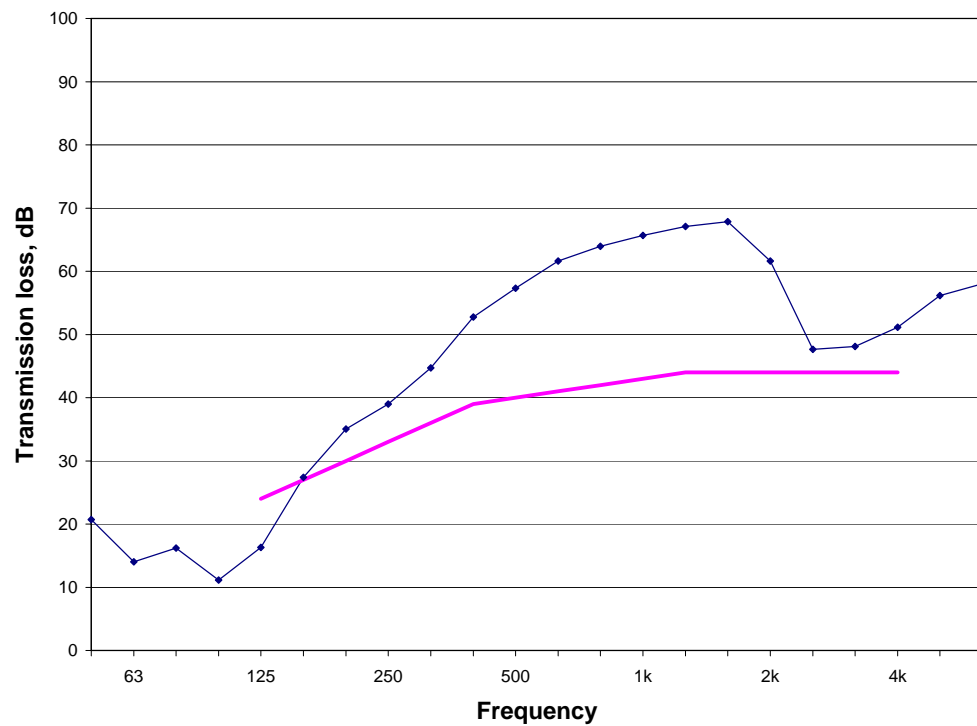


TestID	TL-93-080
STC	40
50 Hz	20.7
63 Hz	14.0
80 Hz	16.2
100 Hz	11.2
125 Hz	16.3
160 Hz	27.4
200 Hz	35.0
250 Hz	39.0
315 Hz	44.7
400 Hz	52.7
500 Hz	57.3
630 Hz	61.6
800 Hz	63.9
1000 Hz	65.7
1250 Hz	67.1
1600 Hz	67.9
2000 Hz	61.6
2500 Hz	47.7
3150 Hz	48.1
4000 Hz	51.1
5000 Hz	56.2
6300 Hz	58.0

TL-93-080

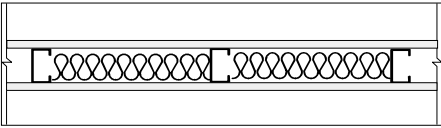
	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	AX	steel	M2	AX
thickness mm	13	90	90	13
gauge		25		
spacing mm		406		
surface density kg/m <sup>2</sup>	10.1		3.5	10.0
linear density kg/m		0.6		
total weight kg	74.7	16.5	28.6	74.0
fastener spacing - edge mm	305			305
fastener spacing - field mm	305			305
fastener top track pattern	c			c
fastener base track pattern	c			c
stud attached to top track		yes		
double header				
orientation	vertical			vertical

TL-93-080  
STC 40



Element	Description:
1	single layer of 13 mm type X gypsum board
2	90 mm steel studs at 406 mm on centre
3	90 mm of mineral fibre insulation in cavity
4	single layer of 13 mm type X gypsum board

G13\_SS90(406)\_MFR90\_G13

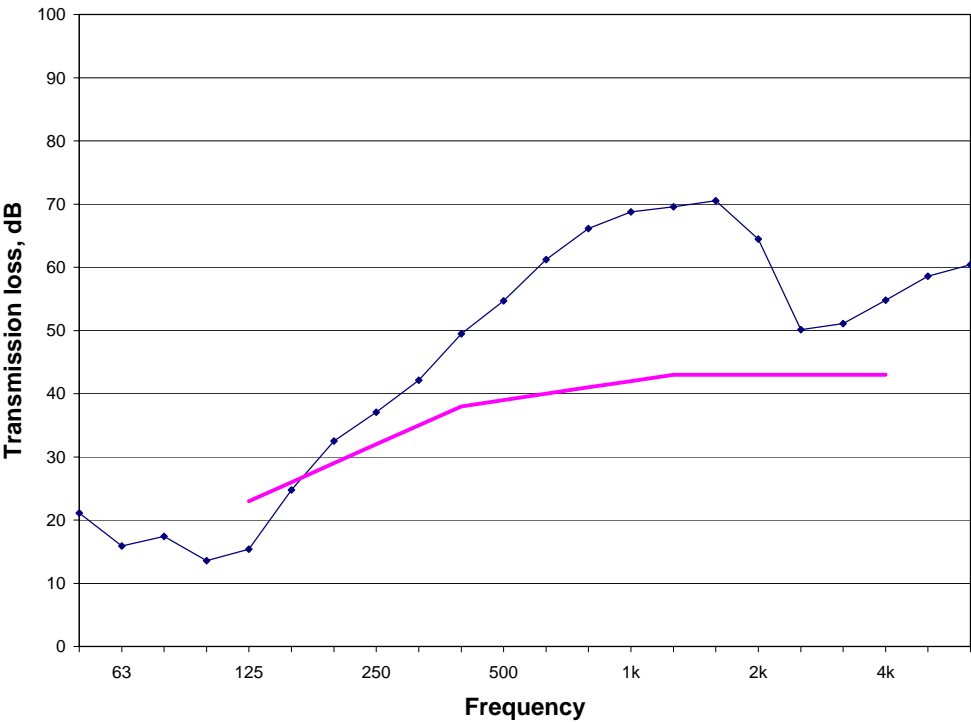


TestID	TL-93-081
STC	39
50 Hz	21.1
63 Hz	15.9
80 Hz	17.4
100 Hz	13.6
125 Hz	15.4
160 Hz	24.7
200 Hz	32.5
250 Hz	37.1
315 Hz	42.1
400 Hz	49.5
500 Hz	54.7
630 Hz	61.2
800 Hz	66.1
1000 Hz	68.7
1250 Hz	69.6
1600 Hz	70.5
2000 Hz	64.5
2500 Hz	50.1
3150 Hz	51.1
4000 Hz	54.8
5000 Hz	58.6
6300 Hz	60.4

TL-93-081

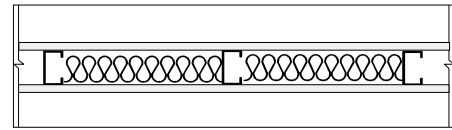
	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	AX	steel	M3	AX
thickness mm	13	90	90	13
gauge		25		
spacing mm		406		
surface density kg/m <sup>2</sup>	10.1		8.3	10.0
linear density kg/m		0.6		
total weight kg	74.7	16.5	61.3	74.0
fastener spacing - edge mm	305			305
fastener spacing - field mm	305			305
fastener top track pattern	c			c
fastener base track pattern	c			c
stud attached to top track		yes		
double header				
orientation	vertical			vertical

TL-93-081  
STC 39



Element	Description:
1	single layer of 13 mm type X gypsum board
2	90 mm steel studs at 610 mm on centre
3	90 mm of blown cellulose fibre insulation in cavity
4	single layer of 13 mm type X gypsum board

G13\_SS90(610)\_CFL90\_G13

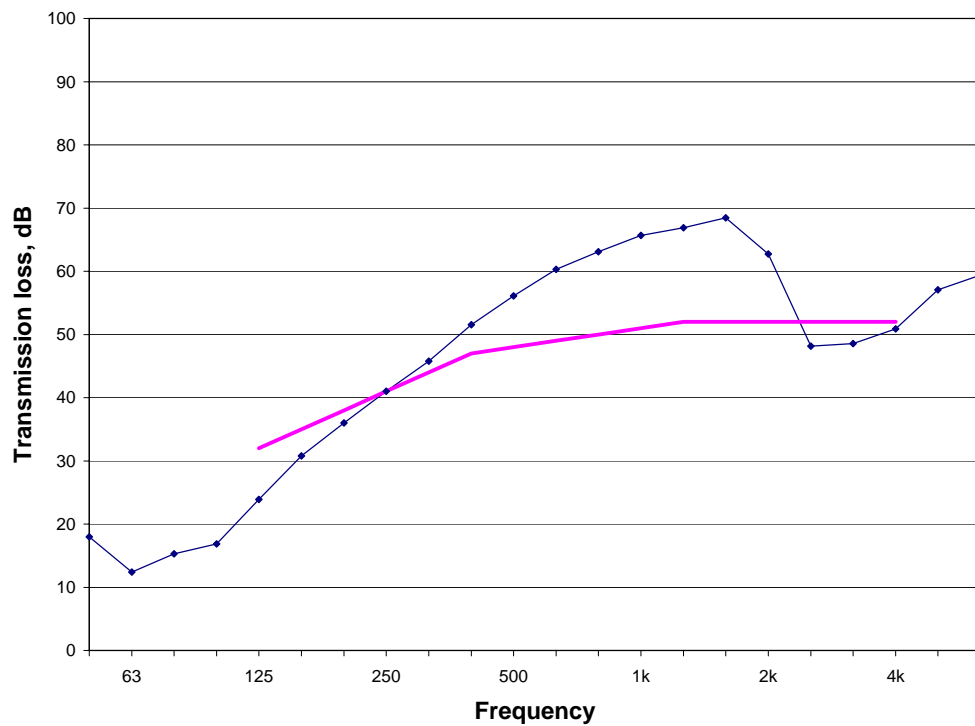


TestID	TL-93-026
STC	48
50 Hz	18.0
63 Hz	12.4
80 Hz	15.3
100 Hz	16.9
125 Hz	23.9
160 Hz	30.8
200 Hz	36.0
250 Hz	41.0
315 Hz	45.8
400 Hz	51.5
500 Hz	56.1
630 Hz	60.3
800 Hz	63.1
1000 Hz	65.6
1250 Hz	66.9
1600 Hz	68.4
2000 Hz	62.7
2500 Hz	48.2
3150 Hz	48.6
4000 Hz	50.9
5000 Hz	57.0
6300 Hz	59.4

TL-93-026

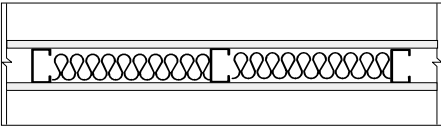
	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	AX	steel	C2	AX
thickness mm	13	90	90	13
gauge		25		
spacing mm		610		
surface density kg/m <sup>2</sup>	10.0		3.4	9.9
linear density kg/m		0.5		
total weight kg	74.1	11.4	25.6	73.9
fastener spacing - edge mm	305			305
fastener spacing - field mm	305			305
fastener top track pattern	c			c
fastener base track pattern	c			c
stud attached to top track		yes		
double header				
orientation	vertical			vertical

TL-93-026  
STC 48



Element	Description:
1	single layer of 13 mm gypsum board
2	90 mm steel studs at 610 mm on centre
3	90 mm of glass fibre insulation in cavity
4	single layer of 13 mm gypsum board

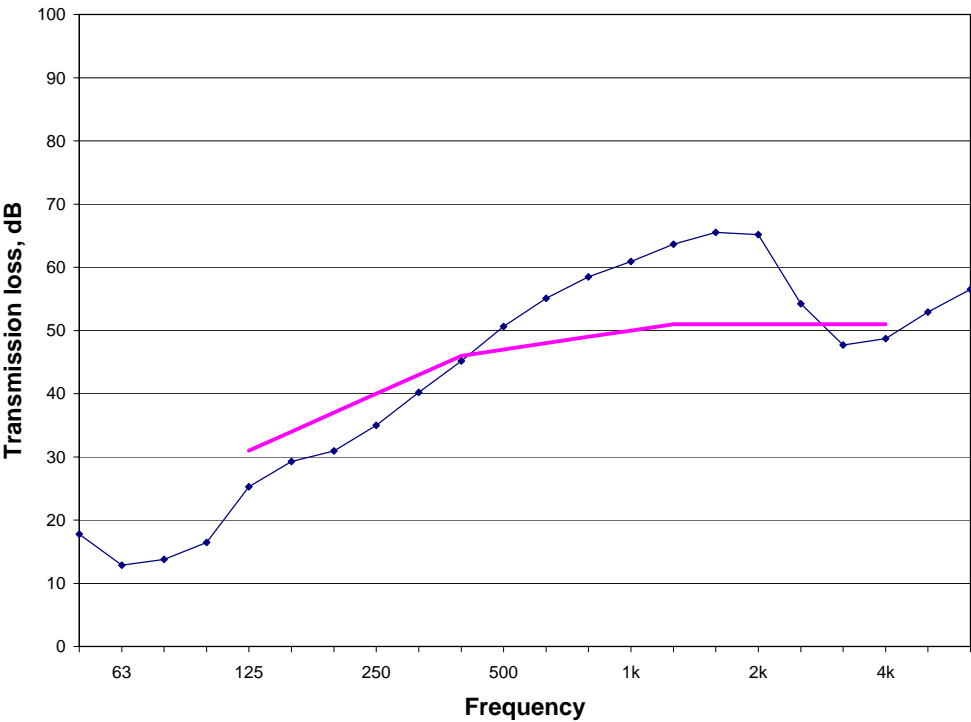
G13\_SS90(610)\_GFB90\_G13



TestID	TL-92-413
STC	47
50 Hz	17.8
63 Hz	12.9
80 Hz	13.8
100 Hz	16.5
125 Hz	25.3
160 Hz	29.3
200 Hz	31.0
250 Hz	35.0
315 Hz	40.2
400 Hz	45.2
500 Hz	50.6
630 Hz	55.1
800 Hz	58.5
1000 Hz	60.9
1250 Hz	63.7
1600 Hz	65.5
2000 Hz	65.2
2500 Hz	54.2
3150 Hz	47.7
4000 Hz	48.7
5000 Hz	52.9
6300 Hz	56.5

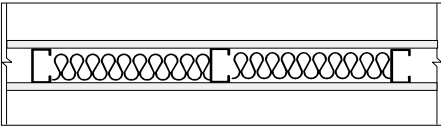
TL-92-413	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	B	steel	G1	B
thickness mm	13	90	90	13
gauge		25		
spacing mm		610		
surface density kg/m <sup>2</sup>	8.3		1.2	8.2
linear density kg/m		0.6		
total weight kg	61.4	13.0	8.7	61.1
fastener spacing - edge mm	305			305
fastener spacing - field mm	305			305
fastener top track pattern	c			c
fastener base track pattern	c			c
stud attached to top track		yes		
double header				
orientation	vertical			vertical

TL-92-413  
STC 47



Element	Description:
1	single layer of 13 mm type X gypsum board
2	90 mm steel studs at 610 mm on centre
3	90 mm of glass fibre insulation in cavity
4	single layer of 13 mm type X gypsum board

G13\_SS90(610)\_GFB90\_G13

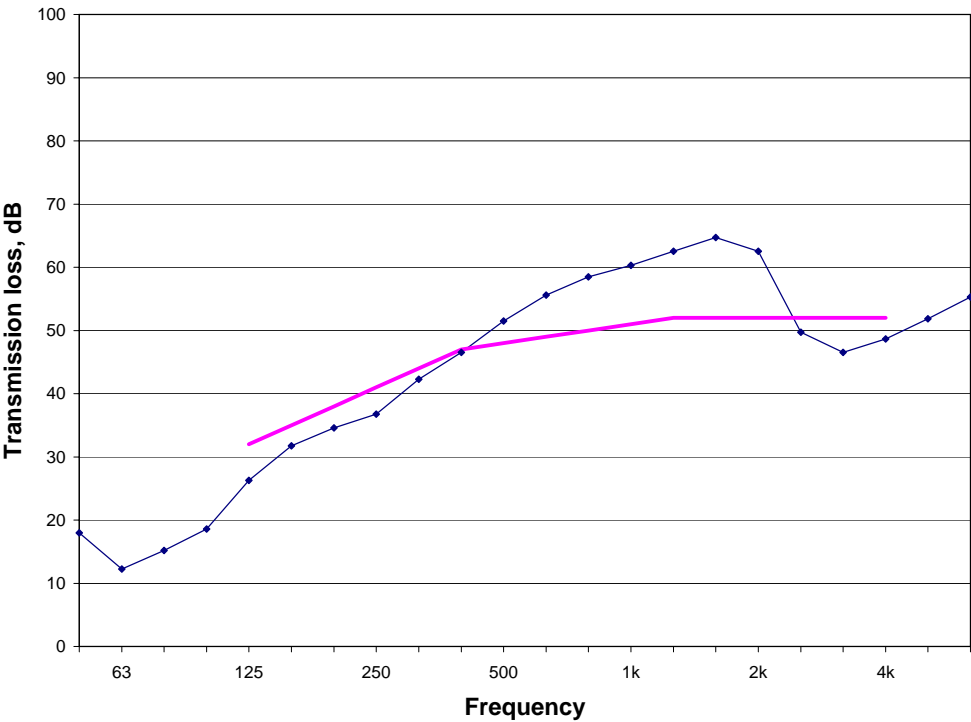


TestID	TL-92-410
STC	48
50 Hz	18.0
63 Hz	12.3
80 Hz	15.2
100 Hz	18.6
125 Hz	26.3
160 Hz	31.8
200 Hz	34.6
250 Hz	36.8
315 Hz	42.3
400 Hz	46.5
500 Hz	51.5
630 Hz	55.6
800 Hz	58.5
1000 Hz	60.3
1250 Hz	62.5
1600 Hz	64.7
2000 Hz	62.5
2500 Hz	49.7
3150 Hz	46.5
4000 Hz	48.7
5000 Hz	51.9
6300 Hz	55.3

TL-92-410

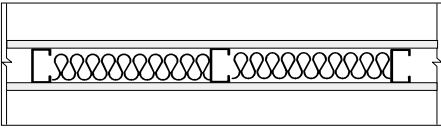
	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	AX	steel	G1	AX
thickness mm	13	90	90	13
gauge		25		
spacing mm		610		
surface density kg/m <sup>2</sup>	9.9		1.2	9.9
linear density kg/m		0.6		
total weight kg	73.7	13.0	8.7	73.7
fastener spacing - edge mm	305			305
fastener spacing - field mm	305			305
fastener top track pattern	c			c
fastener base track pattern	c			c
stud attached to top track		yes		
double header				
orientation	vertical			vertical

TL-92-410  
STC 48



Element	Description:
1	single layer of 16 mm type X gypsum board
2	150 mm steel studs at 610 mm on centre
3	150 mm of glass fibre insulation in cavity
4	single layer of 16 mm type X gypsum board

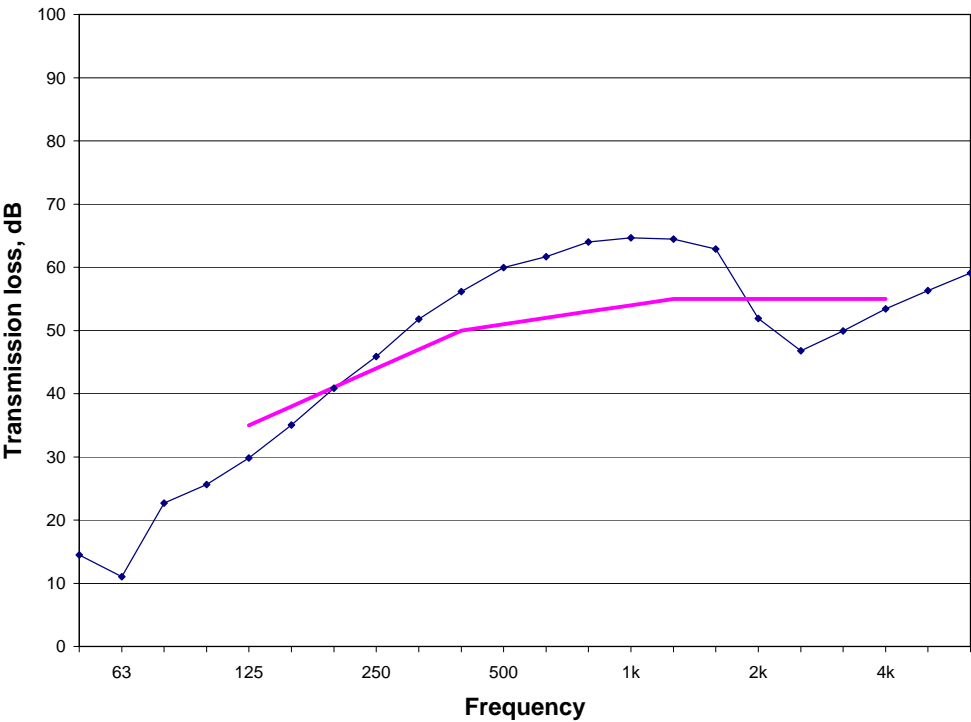
G16\_SS150(610)\_GFB150\_G16



TestID	TL-93-298
STC	51
50 Hz	14.5
63 Hz	11.0
80 Hz	22.7
100 Hz	25.6
125 Hz	29.8
160 Hz	35.0
200 Hz	40.9
250 Hz	45.9
315 Hz	51.8
400 Hz	56.1
500 Hz	59.9
630 Hz	61.7
800 Hz	64.0
1000 Hz	64.7
1250 Hz	64.4
1600 Hz	62.9
2000 Hz	51.9
2500 Hz	46.8
3150 Hz	49.9
4000 Hz	53.4
5000 Hz	56.3
6300 Hz	59.1

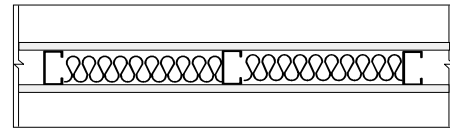
TL-93-298	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	CX	steel	G1	CX
thickness mm	16	150	150	16
gauge		25		
spacing mm		610		
surface density kg/m <sup>2</sup>	11.6		1.7	11.6
linear density kg/m		0.8		
total weight kg	86.1	17.2	12.5	86.4
fastener spacing - edge mm	305			305
fastener spacing - field mm	305			305
fastener top track pattern	a			a
fastener base track pattern	a			a
stud attached to top track		yes		
double header				
orientation	vertical			vertical

TL-93-298  
STC 51



Element	Description:
1	single layer of 16 mm type X gypsum board
2	65 mm steel studs at 406 mm on centre
3	65 mm of glass fibre insulation in cavity
4	single layer of 16 mm type X gypsum board

G16\_SS65(406)\_GFB65\_G16

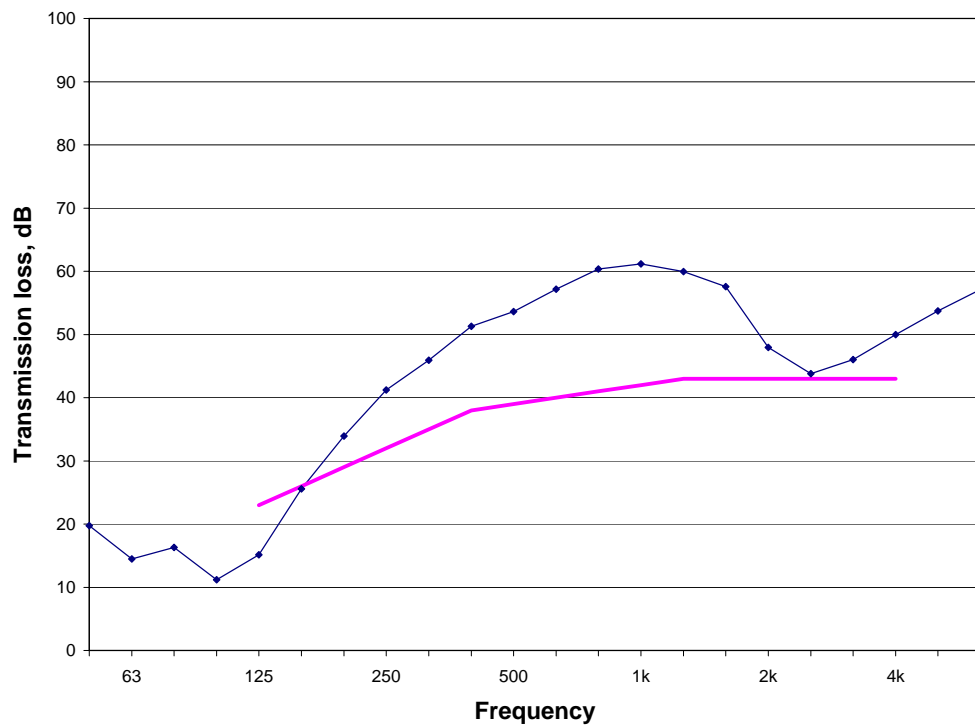


TestID	TL-93-058
STC	39
50 Hz	19.8
63 Hz	14.5
80 Hz	16.3
100 Hz	11.2
125 Hz	15.1
160 Hz	25.5
200 Hz	33.9
250 Hz	41.2
315 Hz	45.9
400 Hz	51.3
500 Hz	53.6
630 Hz	57.2
800 Hz	60.3
1000 Hz	61.2
1250 Hz	60.0
1600 Hz	57.5
2000 Hz	48.0
2500 Hz	43.8
3150 Hz	46.0
4000 Hz	50.0
5000 Hz	53.7
6300 Hz	57.1

TL-93-058

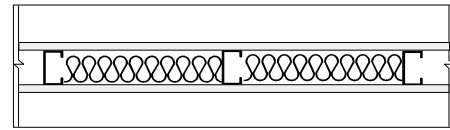
	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	CX	steel	G1	CX
thickness mm	16	65	65	16
gauge		25		
spacing mm		406		
surface density kg/m <sup>2</sup>	11.0		0.8	10.9
linear density kg/m		0.5		
total weight kg	81.6	13.4	6.1	81.0
fastener spacing - edge mm	305			305
fastener spacing - field mm	305			305
fastener top track pattern	c			c
fastener base track pattern	c			c
stud attached to top track		yes		
double header				
orientation	vertical			vertical

TL-93-058  
STC 39



Element	Description:
1	single layer of 16 mm type X gypsum board
2	65 mm steel studs at 406 mm on centre
3	65 mm of mineral fibre insulation in cavity
4	single layer of 16 mm type X gypsum board

G16\_SS65(406)\_MFB65\_G16

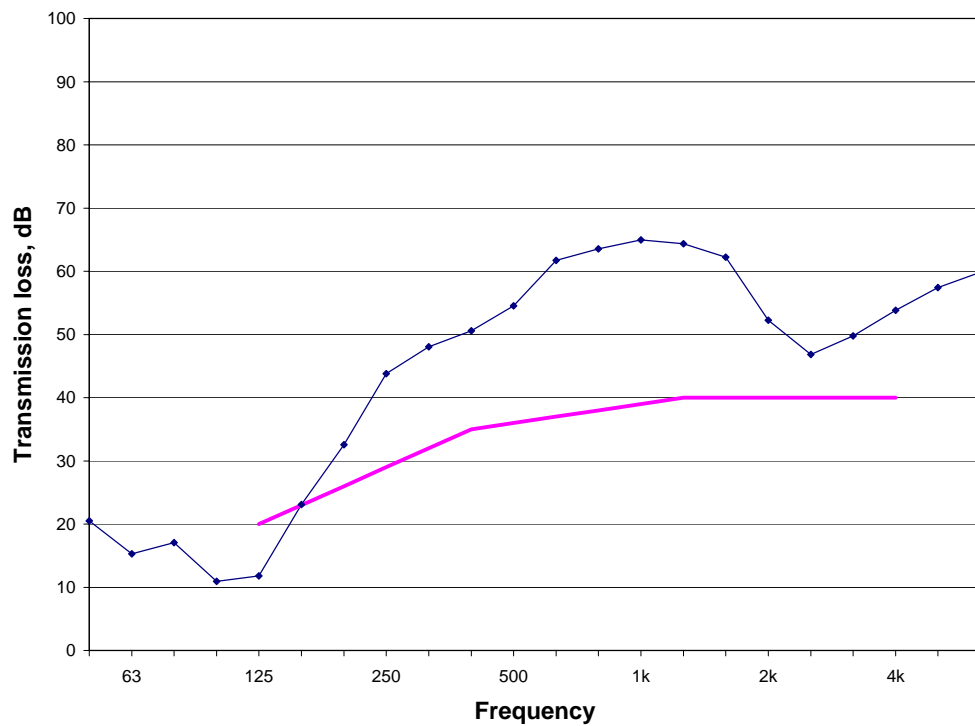


TestID	TL-93-059
STC	36
50 Hz	20.5
63 Hz	15.3
80 Hz	17.1
100 Hz	10.9
125 Hz	11.8
160 Hz	23.1
200 Hz	32.6
250 Hz	43.8
315 Hz	48.0
400 Hz	50.6
500 Hz	54.5
630 Hz	61.7
800 Hz	63.6
1000 Hz	65.0
1250 Hz	64.4
1600 Hz	62.2
2000 Hz	52.2
2500 Hz	46.8
3150 Hz	49.8
4000 Hz	53.8
5000 Hz	57.4
6300 Hz	59.9

TL-93-059

	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	CX	steel	M2	CX
thickness mm	16	65	65	16
gauge		25		
spacing mm		406		
surface density kg/m <sup>2</sup>	11.0		2.9	10.9
linear density kg/m		0.5		
total weight kg	81.5	13.4	21.6	81.0
fastener spacing - edge mm	305			305
fastener spacing - field mm	305			305
fastener top track pattern	c			c
fastener base track pattern	c			c
stud attached to top track		yes		
double header				
orientation	vertical			vertical

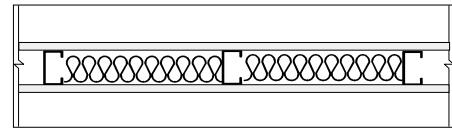
TL-93-059  
STC 36





Element	Description:
1	single layer of 16 mm type X gypsum board
2	65 mm steel studs at 406 mm on centre
3	65 mm of mineral fibre insulation in cavity
4	single layer of 16 mm type X gypsum board

G16\_SS65(406)\_MFB65\_G16

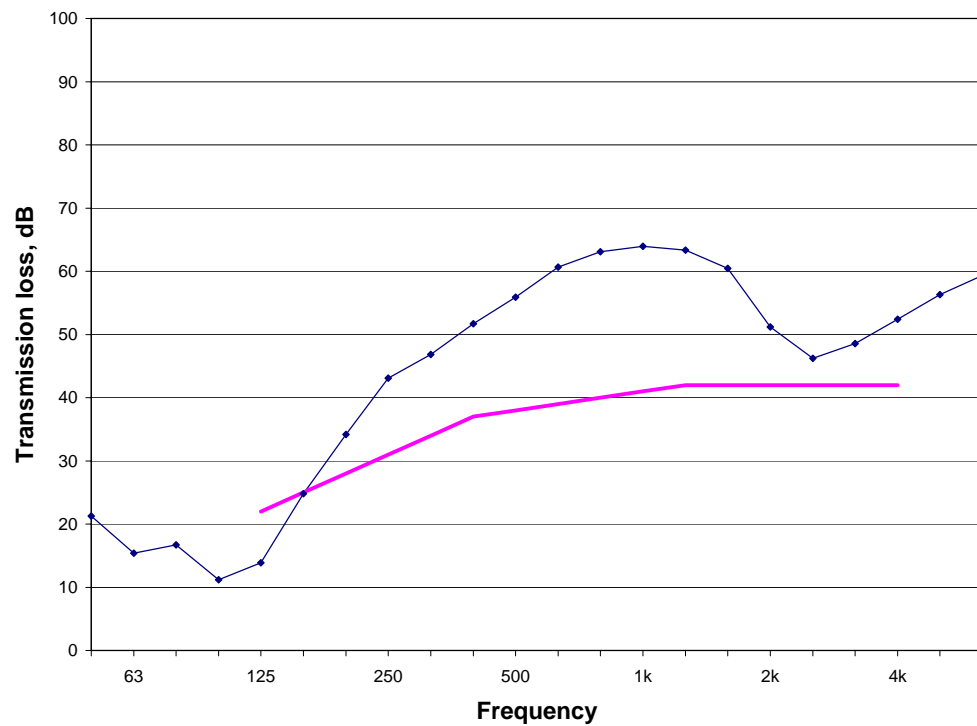


TestID	TL-93-061
STC	38
50 Hz	21.3
63 Hz	15.4
80 Hz	16.7
100 Hz	11.2
125 Hz	13.9
160 Hz	24.8
200 Hz	34.2
250 Hz	43.1
315 Hz	46.8
400 Hz	51.7
500 Hz	55.9
630 Hz	60.7
800 Hz	63.1
1000 Hz	63.9
1250 Hz	63.3
1600 Hz	60.5
2000 Hz	51.2
2500 Hz	46.2
3150 Hz	48.5
4000 Hz	52.4
5000 Hz	56.3
6300 Hz	59.3

TL-93-061

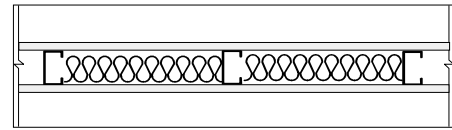
	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	CX	steel	M1	CX
thickness mm	16	65	65	16
gauge		25		
spacing mm		406		
surface density kg/m <sup>2</sup>	11.0		2.3	10.9
linear density kg/m		0.5		
total weight kg	81.5	13.4	17.4	81.1
fastener spacing - edge mm	305			305
fastener spacing - field mm	305			305
fastener top track pattern	c			c
fastener base track pattern	c			c
stud attached to top track		yes		
double header				
orientation	vertical			vertical

TL-93-061  
STC 38



Element	Description:
1	single layer of 16 mm type X gypsum board
2	65 mm steel studs at 406 mm on centre
3	57 mm of mineral fibre insulation in cavity
4	single layer of 16 mm type X gypsum board

G16\_SS65(406)\_MFR57\_G16

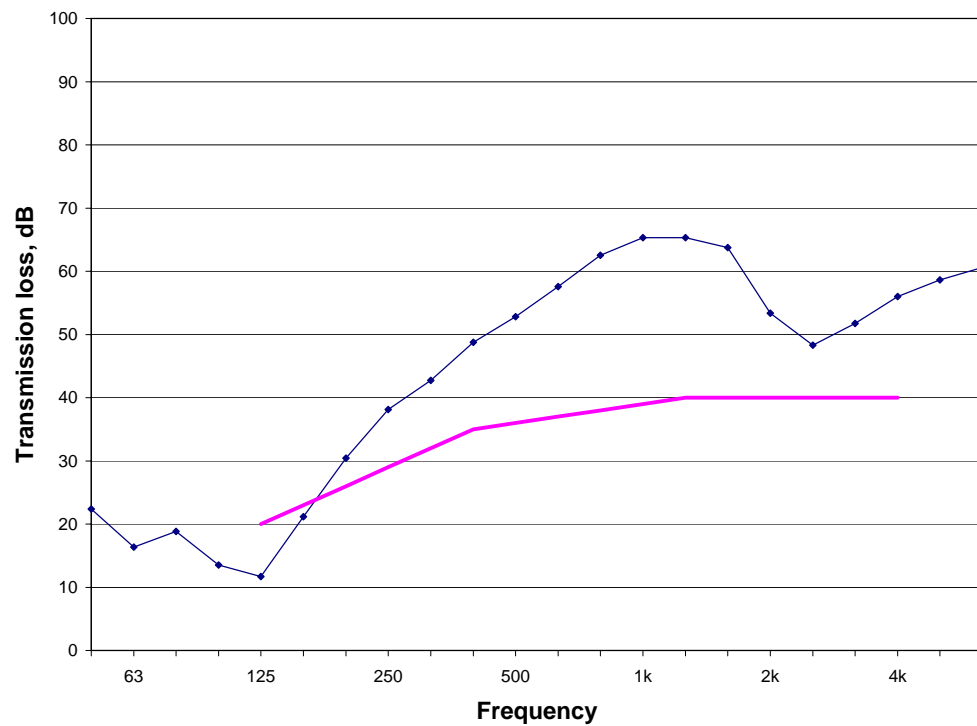


TestID	TL-93-060
STC	36
50 Hz	22.4
63 Hz	16.3
80 Hz	18.8
100 Hz	13.5
125 Hz	11.7
160 Hz	21.2
200 Hz	30.4
250 Hz	38.1
315 Hz	42.8
400 Hz	48.7
500 Hz	52.8
630 Hz	57.6
800 Hz	62.5
1000 Hz	65.3
1250 Hz	65.3
1600 Hz	63.7
2000 Hz	53.4
2500 Hz	48.3
3150 Hz	51.8
4000 Hz	56.0
5000 Hz	58.6
6300 Hz	60.6

TL-93-060

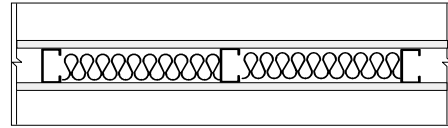
	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	CX	steel	M3	CX
thickness mm	16	65	57	16
gauge		25		
spacing mm		406		
surface density kg/m <sup>2</sup>	11.0		5.3	10.9
linear density kg/m		0.5		
total weight kg	81.5	13.4	39.4	81.0
fastener spacing - edge mm	305			305
fastener spacing - field mm	305			305
fastener top track pattern	c			c
fastener base track pattern	c			c
stud attached to top track		yes		
double header				
orientation	vertical			vertical

TL-93-060  
STC 36



Element	Description:
1	single layer of 16 mm type X gypsum board
2	65 mm steel studs at 610 mm on centre
3	65 mm of glass fibre insulation in cavity
4	single layer of 16 mm type X gypsum board

G16\_SS65(610)\_GFB65\_G16

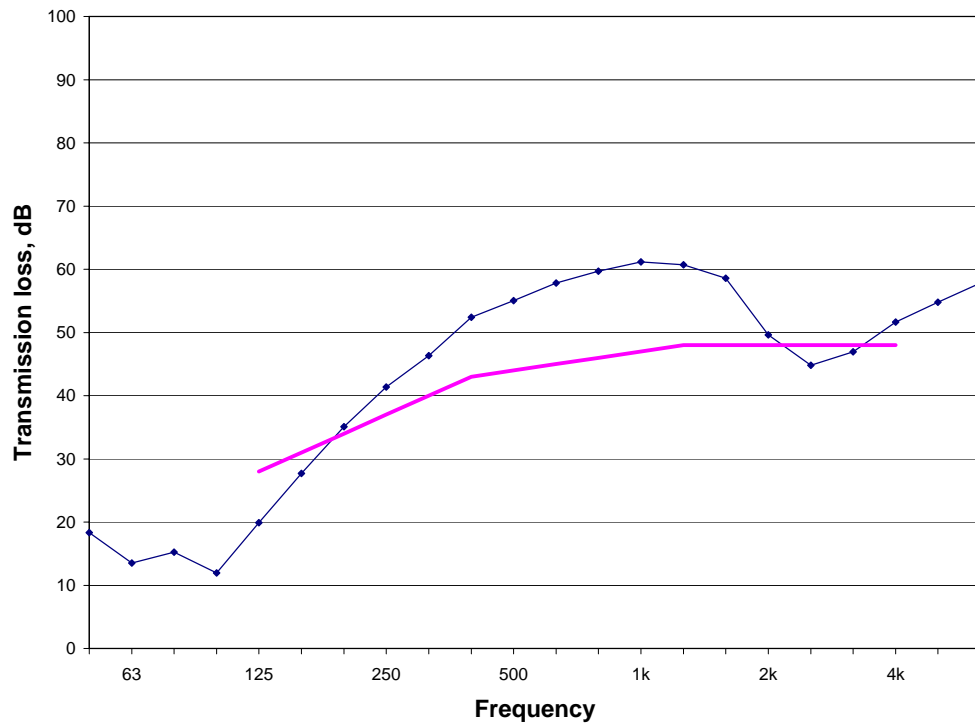


TestID	TL-93-033
STC	44
50 Hz	18.3
63 Hz	13.5
80 Hz	15.3
100 Hz	12.0
125 Hz	19.9
160 Hz	27.7
200 Hz	35.1
250 Hz	41.4
315 Hz	46.3
400 Hz	52.4
500 Hz	55.0
630 Hz	57.8
800 Hz	59.7
1000 Hz	61.2
1250 Hz	60.7
1600 Hz	58.6
2000 Hz	49.6
2500 Hz	44.8
3150 Hz	47.0
4000 Hz	51.6
5000 Hz	54.8
6300 Hz	57.8

TL-93-033

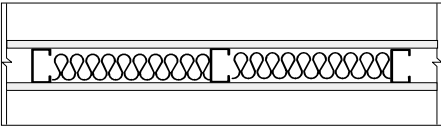
	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	CX	steel	G1	CX
thickness mm	16	65	65	16
gauge		25		
spacing mm		610		
surface density kg/m <sup>2</sup>	11.0		0.8	11.0
linear density kg/m		0.5		
total weight kg	81.8	9.8	5.9	81.9
fastener spacing - edge mm	305			305
fastener spacing - field mm	305			305
fastener top track pattern	c			c
fastener base track pattern	c			c
stud attached to top track		yes		
double header				
orientation	vertical			vertical

TL-93-033  
STC 44



Element	Description:
1	single layer of 16 mm type X gypsum board
2	65 mm steel studs at 610 mm on centre
3	65 mm of glass fibre insulation in cavity
4	single layer of 16 mm type X gypsum board

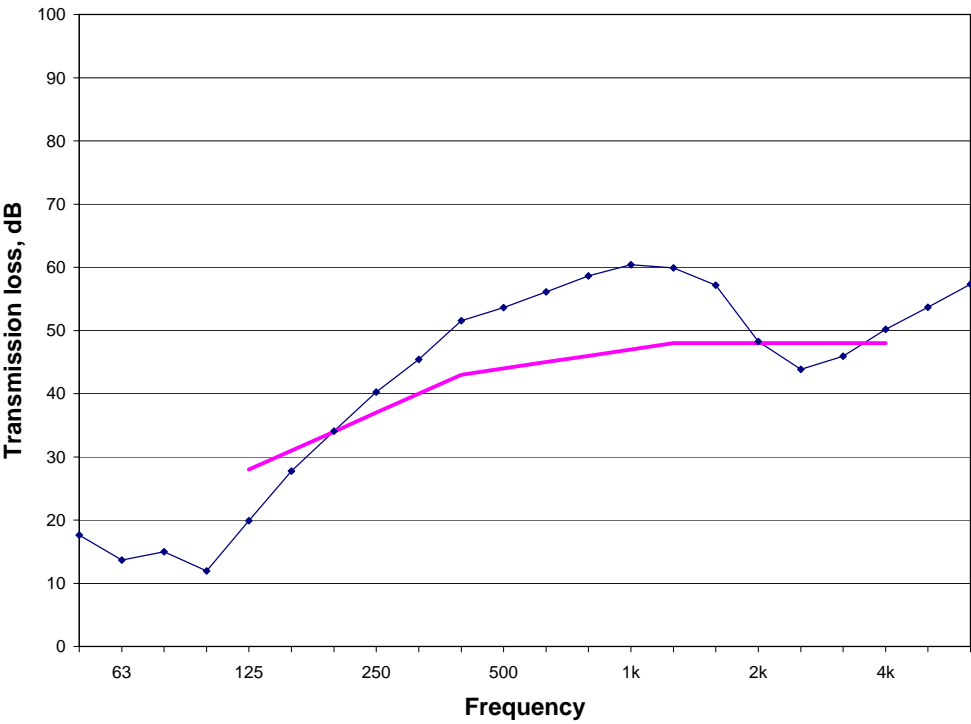
G16\_SS65(610)\_GFB65\_G16



TestID	TL-93-073
STC	44
50 Hz	17.6
63 Hz	13.7
80 Hz	15.0
100 Hz	11.9
125 Hz	19.9
160 Hz	27.8
200 Hz	34.1
250 Hz	40.3
315 Hz	45.4
400 Hz	51.5
500 Hz	53.6
630 Hz	56.1
800 Hz	58.6
1000 Hz	60.4
1250 Hz	59.9
1600 Hz	57.2
2000 Hz	48.3
2500 Hz	43.8
3150 Hz	45.9
4000 Hz	50.2
5000 Hz	53.7
6300 Hz	57.3

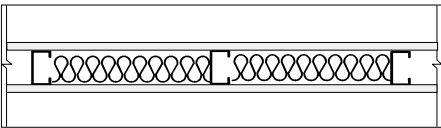
TL-93-073	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	CX	steel	G1	CX
thickness mm	16	65	65	16
gauge		25		
spacing mm		610		
surface density kg/m <sup>2</sup>	11.0		0.8	10.8
linear density kg/m		0.5		
total weight kg	82.1	9.5	6.2	80.5
fastener spacing - edge mm	305			305
fastener spacing - field mm	305			305
fastener top track pattern	c			c
fastener base track pattern	c			c
stud attached to top track		yes		
double header				
orientation	vertical			vertical

TL-93-073  
STC 44



G16\_SS65(610)\_MFB65\_G16

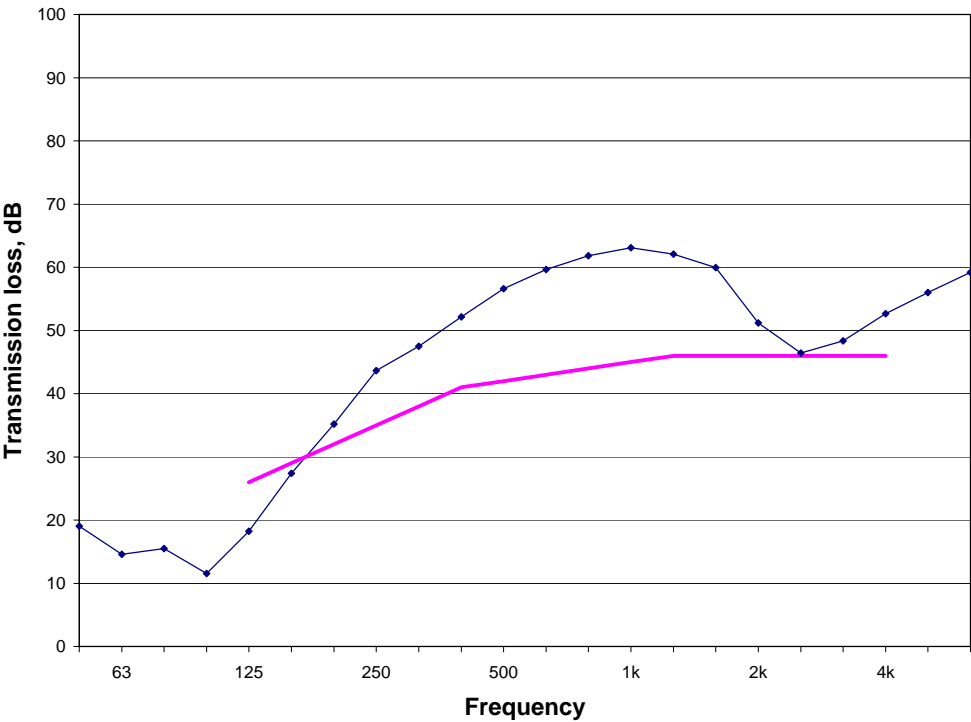
Element	Description:
1	single layer of 16 mm type X gypsum board
2	65 mm steel studs at 610 mm on centre
3	65 mm of mineral fibre insulation in cavity
4	single layer of 16 mm type X gypsum board



TestID	TL-93-034
STC	42
50 Hz	19.1
63 Hz	14.6
80 Hz	15.5
100 Hz	11.6
125 Hz	18.3
160 Hz	27.4
200 Hz	35.2
250 Hz	43.7
315 Hz	47.5
400 Hz	52.1
500 Hz	56.6
630 Hz	59.6
800 Hz	61.8
1000 Hz	63.1
1250 Hz	62.1
1600 Hz	60.0
2000 Hz	51.2
2500 Hz	46.4
3150 Hz	48.3
4000 Hz	52.7
5000 Hz	56.0
6300 Hz	59.2

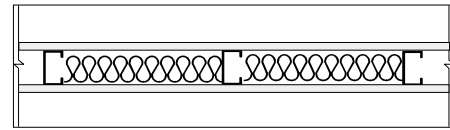
TL-93-034	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	CX	steel	M1	CX
thickness mm	16	65	65	16
gauge		25		
spacing mm		610		
surface density kg/m <sup>2</sup>	11.1		2.2	11.0
linear density kg/m		0.5		
total weight kg	82.2	9.8	16.7	81.9
fastener spacing - edge mm	305			305
fastener spacing - field mm	305			305
fastener top track pattern	c			c
fastener base track pattern	c			c
stud attached to top track		yes		
double header				
orientation	vertical			vertical

TL-93-034  
STC 42



Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm steel studs at 406 mm on centre
3	90 mm of blown cellulose fibre insulation in cavity
4	single layer of 16 mm type X gypsum board

G16\_SS90(406)\_CFL90\_G16

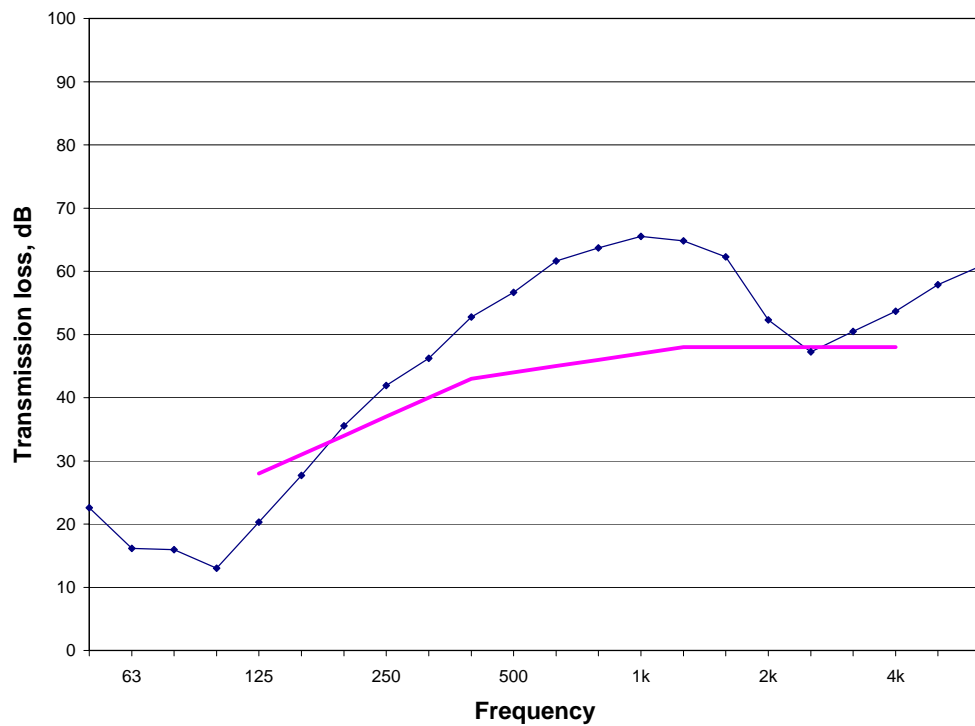


TestID	TL-92-438
STC	44
50 Hz	22.6
63 Hz	16.1
80 Hz	15.9
100 Hz	13.0
125 Hz	20.3
160 Hz	27.7
200 Hz	35.6
250 Hz	41.9
315 Hz	46.2
400 Hz	52.8
500 Hz	56.7
630 Hz	61.6
800 Hz	63.7
1000 Hz	65.5
1250 Hz	64.8
1600 Hz	62.3
2000 Hz	52.3
2500 Hz	47.2
3150 Hz	50.5
4000 Hz	53.7
5000 Hz	57.9
6300 Hz	60.8

TL-92-438

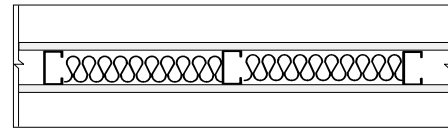
	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	CX	steel	C2	CX
thickness mm	16	90	90	16
gauge		25		
spacing mm		406		
surface density kg/m <sup>2</sup>	10.9		4.1	11.0
linear density kg/m		0.6		
total weight kg	81.2	16.4	30.7	81.5
fastener spacing - edge mm	305			305
fastener spacing - field mm	305			305
fastener top track pattern	c			c
fastener base track pattern	c			c
stud attached to top track		yes		
double header				
orientation	vertical			vertical

TL-92-438  
STC 44



Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm steel studs at 406 mm on centre
3	40 mm of sprayed cellulose fibre insulation in cavity
4	single layer of 16 mm type X gypsum board

G16\_SS90(406)\_CFS40\_G16

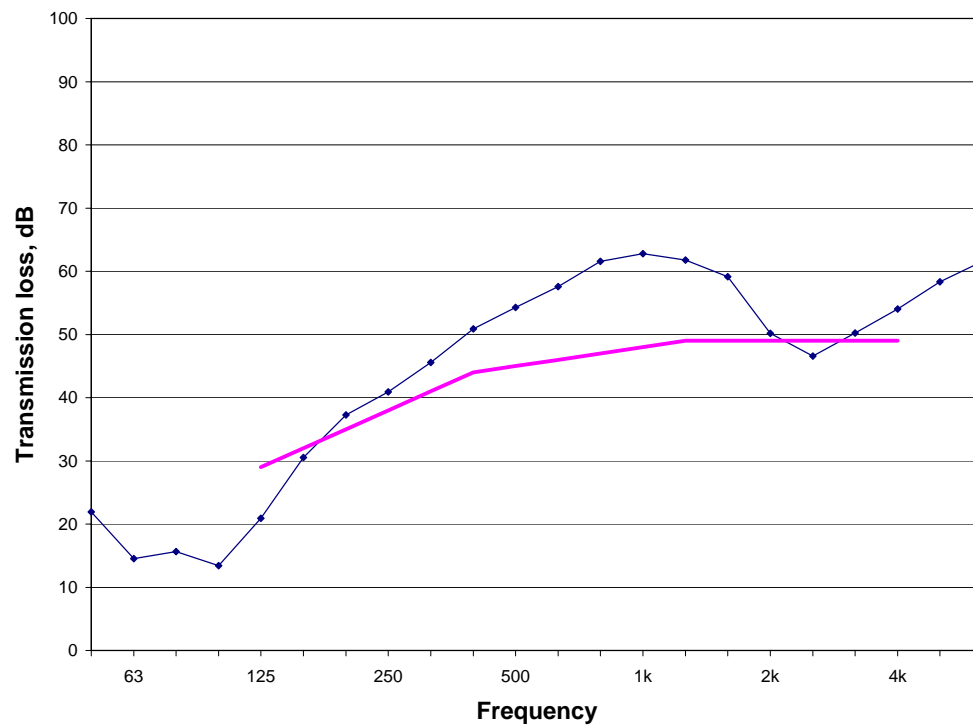


TestID	TL-92-439
STC	45
50 Hz	21.9
63 Hz	14.5
80 Hz	15.7
100 Hz	13.4
125 Hz	20.9
160 Hz	30.6
200 Hz	37.3
250 Hz	40.9
315 Hz	45.6
400 Hz	50.9
500 Hz	54.3
630 Hz	57.6
800 Hz	61.6
1000 Hz	62.8
1250 Hz	61.8
1600 Hz	59.2
2000 Hz	50.2
2500 Hz	46.6
3150 Hz	50.2
4000 Hz	54.0
5000 Hz	58.3
6300 Hz	61.6

TL-92-439

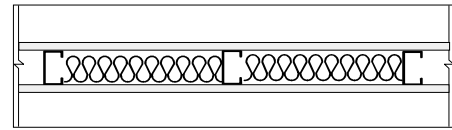
	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	CX	steel	C1	CX
thickness mm	16	90	40	16
gauge		25		
spacing mm		406		
surface density kg/m <sup>2</sup>	10.9		2.1	10.8
linear density kg/m		0.6		
total weight kg	81.2	16.0	15.5	80.5
fastener spacing - edge mm	305			305
fastener spacing - field mm	305			305
fastener top track pattern	c			c
fastener base track pattern	c			c
stud attached to top track		yes		
double header				
orientation	vertical			vertical

TL-92-439  
STC 45



Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm steel studs at 406 mm on centre
3	90 mm of sprayed cellulose fibre insulation in cavity
4	single layer of 16 mm type X gypsum board

G16\_SS90(406)\_CFS90\_G16

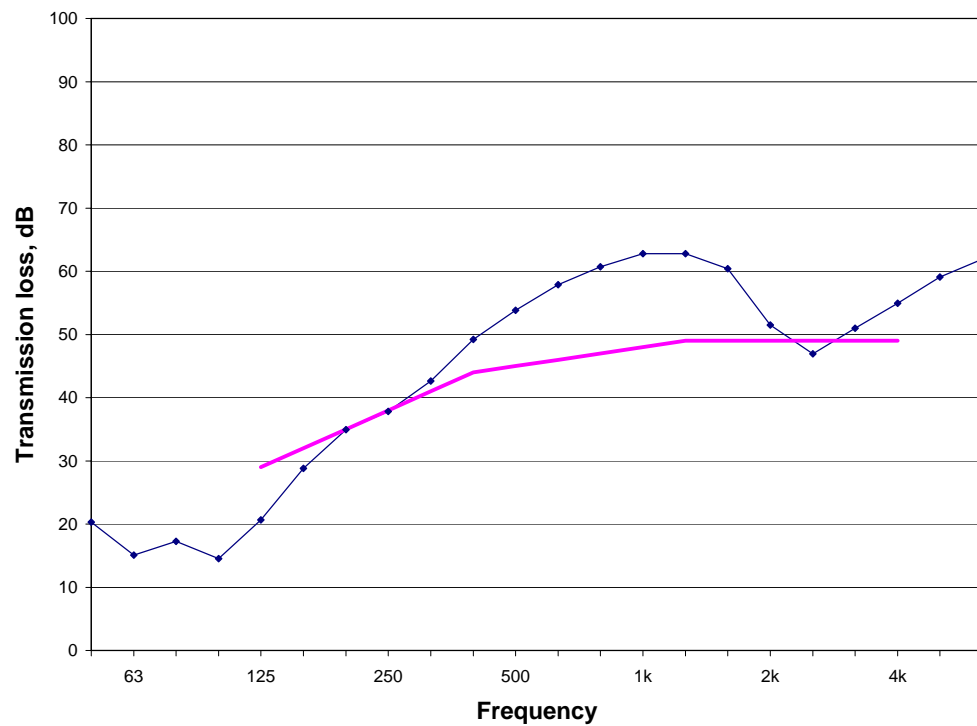


TestID	TL-93-049
STC	45
50 Hz	20.3
63 Hz	15.1
80 Hz	17.3
100 Hz	14.5
125 Hz	20.6
160 Hz	28.8
200 Hz	34.9
250 Hz	37.8
315 Hz	42.6
400 Hz	49.2
500 Hz	53.8
630 Hz	57.9
800 Hz	60.7
1000 Hz	62.8
1250 Hz	62.8
1600 Hz	60.4
2000 Hz	51.5
2500 Hz	46.9
3150 Hz	51.0
4000 Hz	54.9
5000 Hz	59.1
6300 Hz	61.9

TL-93-049

	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	CX	steel	C1	CX
thickness mm	16	90	90	16
gauge		25		
spacing mm		406		
surface density kg/m <sup>2</sup>	11.1		4.1	10.9
linear density kg/m		0.6		
total weight kg	82.2	16.0	30.5	81.0
fastener spacing - edge mm	305			305
fastener spacing - field mm	305			305
fastener top track pattern	c			c
fastener base track pattern	c			c
stud attached to top track		yes		
double header				
orientation	vertical			vertical

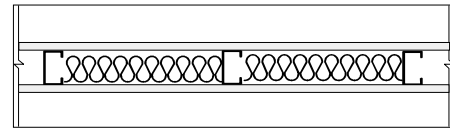
TL-93-049  
STC 45





Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm steel studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	single layer of 16 mm type X gypsum board

G16\_SS90(406)\_GFB90\_G16

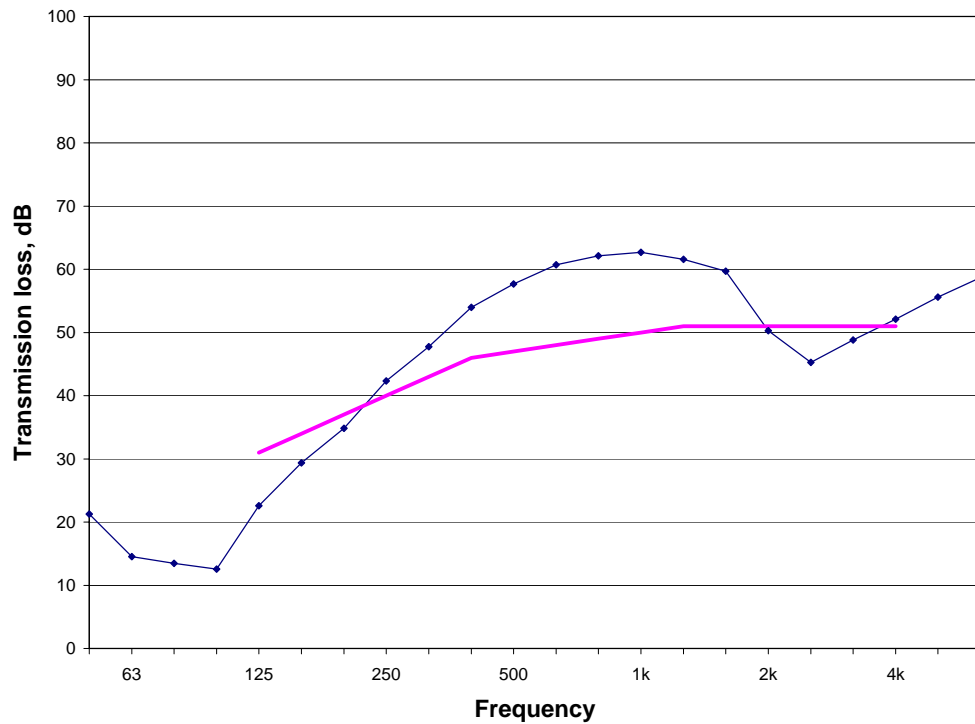


TestID	TL-92-419
STC	47
50 Hz	21.2
63 Hz	14.5
80 Hz	13.5
100 Hz	12.6
125 Hz	22.6
160 Hz	29.4
200 Hz	34.9
250 Hz	42.3
315 Hz	47.8
400 Hz	54.0
500 Hz	57.7
630 Hz	60.7
800 Hz	62.1
1000 Hz	62.7
1250 Hz	61.6
1600 Hz	59.7
2000 Hz	50.3
2500 Hz	45.3
3150 Hz	48.8
4000 Hz	52.1
5000 Hz	55.6
6300 Hz	58.7

TL-92-419

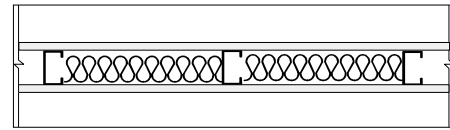
	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	CX	steel	G1	CX
thickness mm	16	90	90	16
gauge		25		
spacing mm		406		
surface density kg/m <sup>2</sup>	10.9		1.1	10.9
linear density kg/m		0.6		
total weight kg	80.7	15.8	8.2	81.3
fastener spacing - edge mm	305			305
fastener spacing - field mm	305			305
fastener top track pattern	c			c
fastener base track pattern	c			c
stud attached to top track		yes		
double header				
orientation	vertical			vertical

TL-92-419  
STC 47



Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm steel studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	single layer of 16 mm type X gypsum board

G16\_SS90(406)\_GFB90\_G16

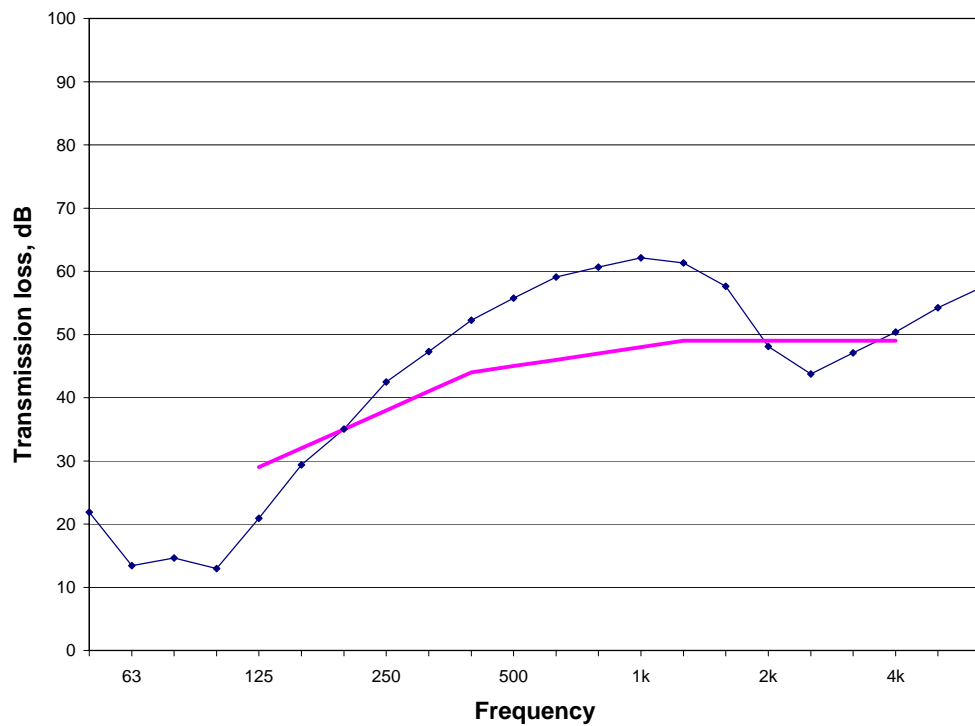


TestID	TL-92-443
STC	45
50 Hz	21.9
63 Hz	13.4
80 Hz	14.6
100 Hz	13.0
125 Hz	20.9
160 Hz	29.4
200 Hz	35.1
250 Hz	42.5
315 Hz	47.3
400 Hz	52.2
500 Hz	55.8
630 Hz	59.1
800 Hz	60.7
1000 Hz	62.1
1250 Hz	61.3
1600 Hz	57.6
2000 Hz	48.1
2500 Hz	43.8
3150 Hz	47.1
4000 Hz	50.4
5000 Hz	54.2
6300 Hz	57.4

TL-92-443

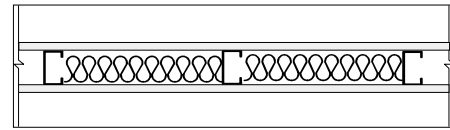
	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	CX	steel	G1	CX
thickness mm	16	90	90	16
gauge		25		
spacing mm		406		
surface density kg/m <sup>2</sup>	10.9		1.1	10.9
linear density kg/m		0.6		
total weight kg	81.2	16.0	8.2	80.8
fastener spacing - edge mm	305			305
fastener spacing - field mm	305			305
fastener top track pattern	c			c
fastener base track pattern	c			c
stud attached to top track		yes		
double header				
orientation	vertical			vertical

TL-92-443  
STC 45



Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm steel studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	single layer of 16 mm type X gypsum board

G16\_SS90(406)\_GFB90\_G16

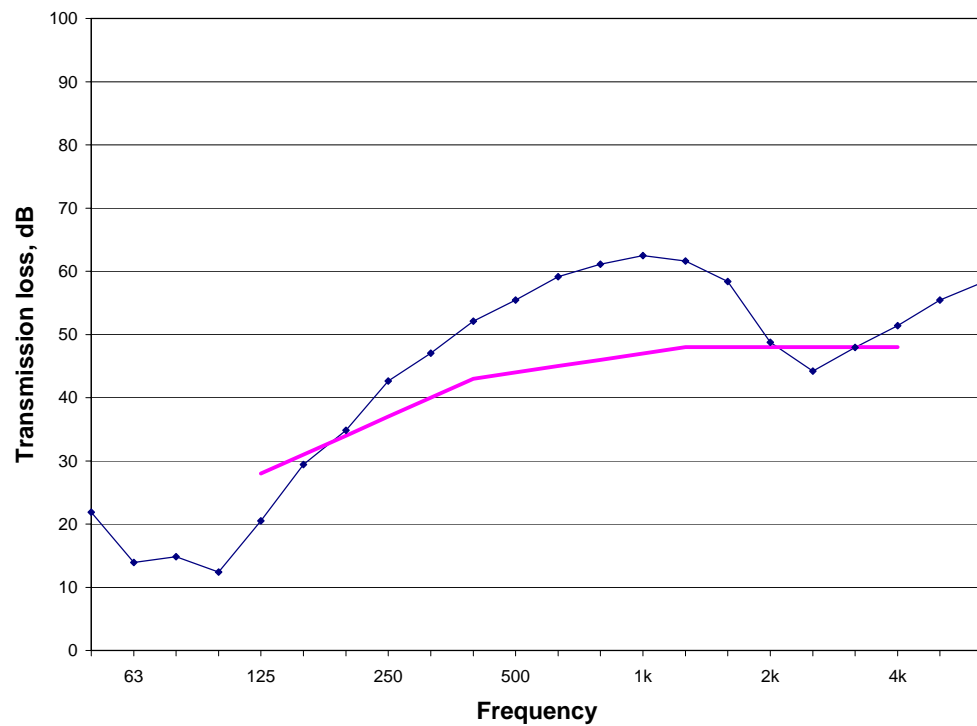


TestID	TL-92-444
STC	44
50 Hz	21.8
63 Hz	13.9
80 Hz	14.8
100 Hz	12.4
125 Hz	20.5
160 Hz	29.4
200 Hz	34.8
250 Hz	42.6
315 Hz	47.0
400 Hz	52.1
500 Hz	55.4
630 Hz	59.1
800 Hz	61.1
1000 Hz	62.5
1250 Hz	61.6
1600 Hz	58.4
2000 Hz	48.8
2500 Hz	44.2
3150 Hz	47.9
4000 Hz	51.4
5000 Hz	55.4
6300 Hz	58.2

TL-92-444

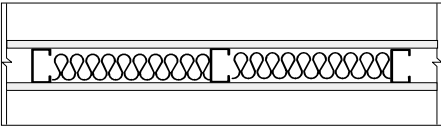
	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	CX	steel	G1	CX
thickness mm	16	90	90	16
gauge		25		
spacing mm		406		
surface density kg/m <sup>2</sup>	10.9		1.1	10.9
linear density kg/m		0.6		
total weight kg	81.2	16.0	8.2	80.8
fastener spacing - edge mm	305			305
fastener spacing - field mm	305			305
fastener top track pattern	c			c
fastener base track pattern	c			c
stud attached to top track		yes		
double header				
orientation	vertical			vertical

TL-92-444  
STC 44



Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm steel studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	single layer of 16 mm type X gypsum board

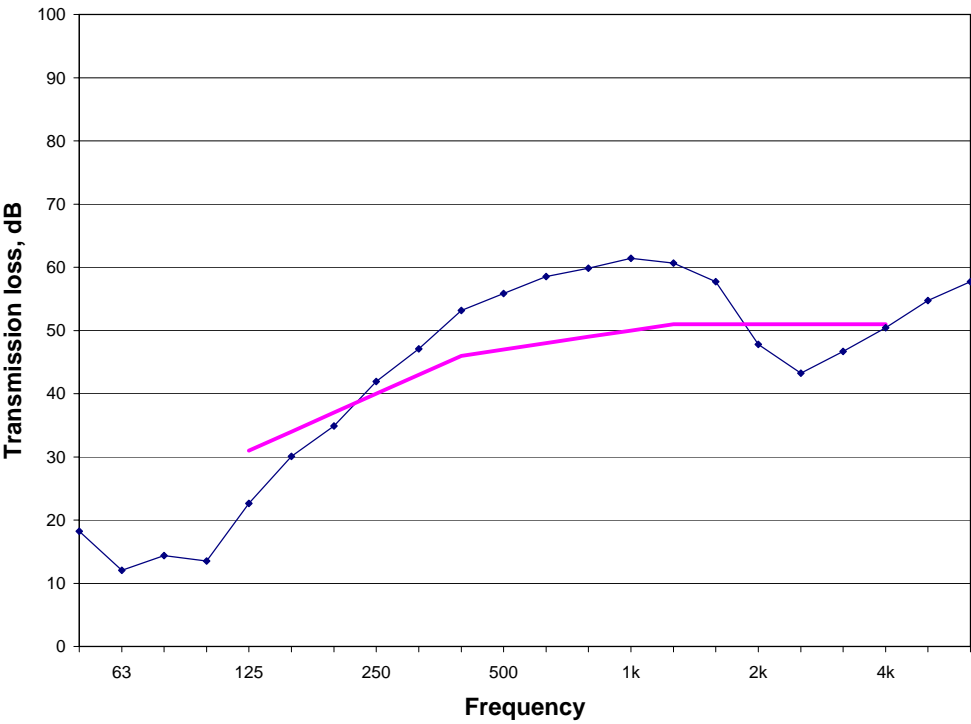
G16\_SS90(406)\_GFB90\_G16



TestID	TL-93-074
STC	47
50 Hz	18.2
63 Hz	12.1
80 Hz	14.4
100 Hz	13.5
125 Hz	22.6
160 Hz	30.1
200 Hz	34.9
250 Hz	41.9
315 Hz	47.1
400 Hz	53.2
500 Hz	55.8
630 Hz	58.5
800 Hz	59.8
1000 Hz	61.4
1250 Hz	60.7
1600 Hz	57.7
2000 Hz	47.8
2500 Hz	43.2
3150 Hz	46.7
4000 Hz	50.5
5000 Hz	54.7
6300 Hz	57.7

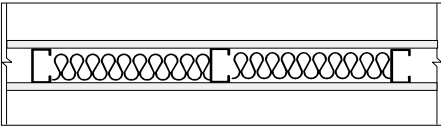
TL-93-074	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	CX	steel	G1	CX
thickness mm	16	90	90	16
gauge		25		
spacing mm		406		
surface density kg/m <sup>2</sup>	11.0		1.0	11.0
linear density kg/m		0.6		
total weight kg	82.1	16.5	7.8	82.1
fastener spacing - edge mm	305			305
fastener spacing - field mm	305			305
fastener top track pattern	c			c
fastener base track pattern	c			c
stud attached to top track		yes		
double header				
orientation	vertical			vertical

TL-93-074  
STC 47



Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm steel studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	single layer of 16 mm type X gypsum board

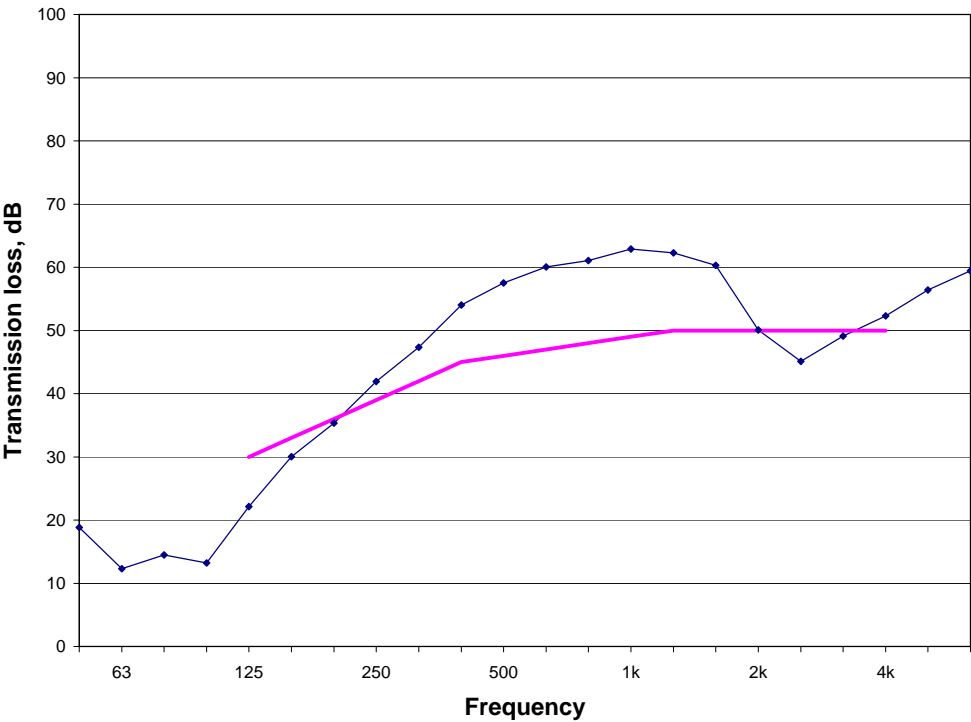
G16\_SS90(406)\_GFB90\_G16



TestID	TL-93-075
STC	46
50 Hz	18.8
63 Hz	12.3
80 Hz	14.5
100 Hz	13.2
125 Hz	22.1
160 Hz	30.0
200 Hz	35.3
250 Hz	41.9
315 Hz	47.3
400 Hz	54.0
500 Hz	57.5
630 Hz	60.0
800 Hz	61.1
1000 Hz	62.9
1250 Hz	62.3
1600 Hz	60.3
2000 Hz	50.1
2500 Hz	45.1
3150 Hz	49.1
4000 Hz	52.3
5000 Hz	56.4
6300 Hz	59.4

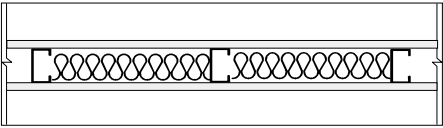
TL-93-075	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	CX	steel	G1	CX
thickness mm	16	90	90	16
gauge		25		
spacing mm		406		
surface density kg/m <sup>2</sup>	11.0		1.0	11.0
linear density kg/m		0.6		
total weight kg	82.1	16.5	7.8	82.1
fastener spacing - edge mm	305			305
fastener spacing - field mm	305			305
fastener top track pattern	d			d
fastener base track pattern	d			d
stud attached to top track		yes		
double header				
orientation	vertical			vertical

TL-93-075  
STC 46



Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm steel studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	single layer of 16 mm type X gypsum board

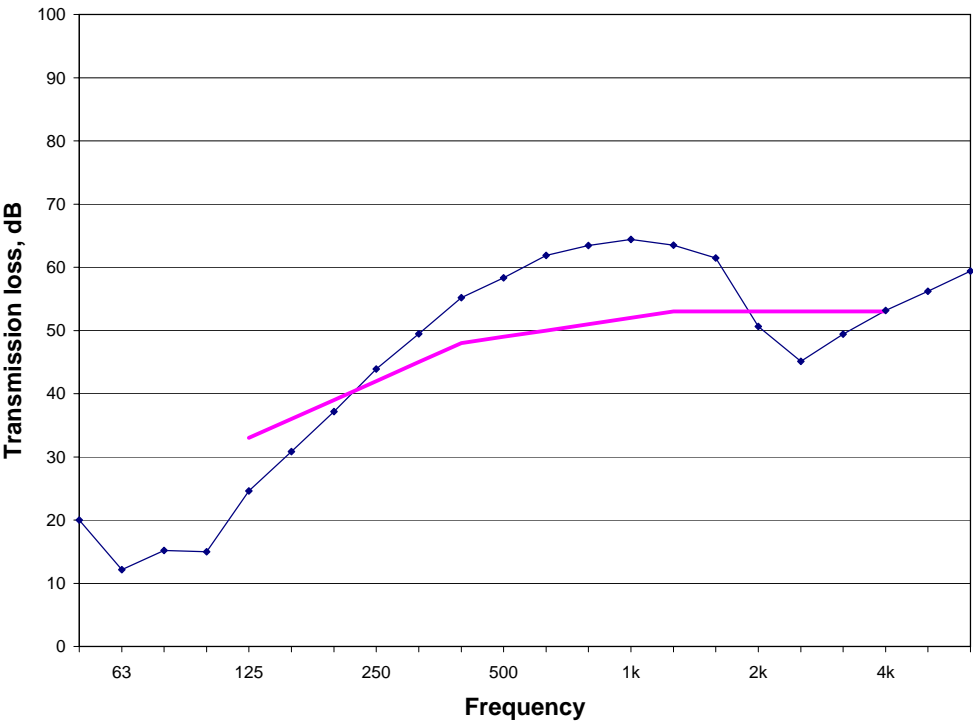
G16\_SS90(406)\_GFB90\_G16



TestID	TL-93-325
STC	49
50 Hz	20.0
63 Hz	12.2
80 Hz	15.2
100 Hz	15.0
125 Hz	24.6
160 Hz	30.8
200 Hz	37.2
250 Hz	43.9
315 Hz	49.5
400 Hz	55.2
500 Hz	58.3
630 Hz	61.9
800 Hz	63.5
1000 Hz	64.4
1250 Hz	63.5
1600 Hz	61.5
2000 Hz	50.7
2500 Hz	45.1
3150 Hz	49.4
4000 Hz	53.1
5000 Hz	56.2
6300 Hz	59.4

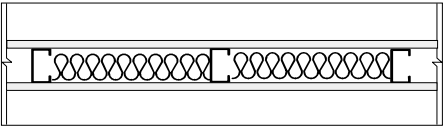
TL-93-325	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	CX	steel	G1	CX
thickness mm	16	90	90	16
gauge		25		
spacing mm		406		
surface density kg/m <sup>2</sup>	11.4		1.1	11.4
linear density kg/m		0.6		
total weight kg	84.8	16.2	8.0	84.8
fastener spacing - edge mm	305			305
fastener spacing - field mm	305			305
fastener top track pattern	d			d
fastener base track pattern	a			a
stud attached to top track				
double header				
orientation	vertical			vertical

TL-93-325  
STC 49



Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm steel studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	single layer of 16 mm type X gypsum board

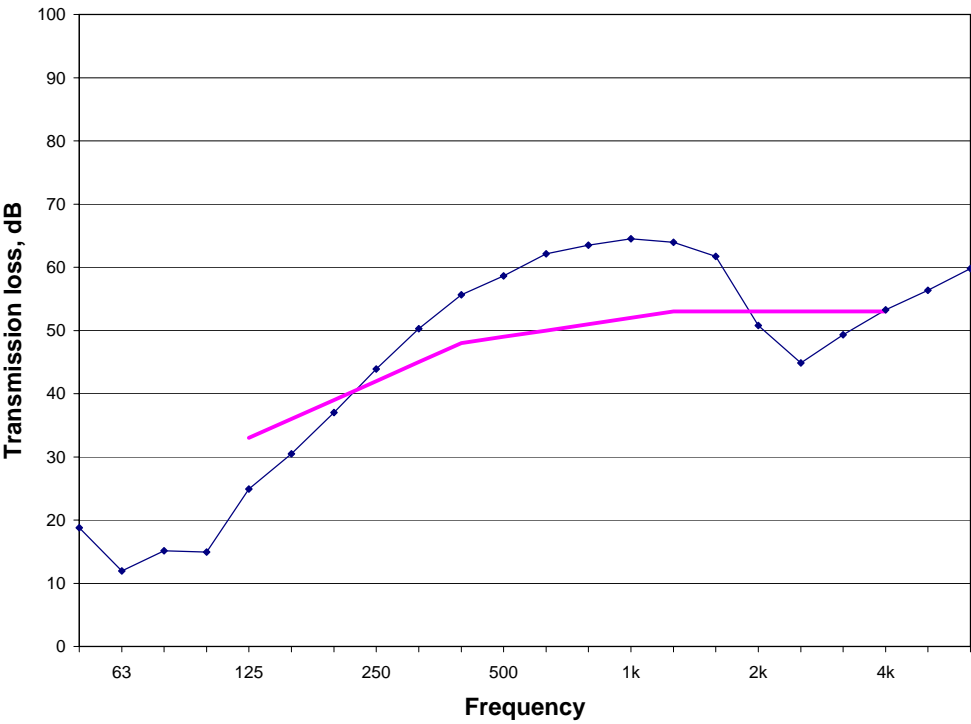
G16\_SS90(406)\_GFB90\_G16



TestID	TL-93-326
STC	49
50 Hz	18.8
63 Hz	11.9
80 Hz	15.1
100 Hz	14.9
125 Hz	24.9
160 Hz	30.5
200 Hz	37.0
250 Hz	43.9
315 Hz	50.3
400 Hz	55.6
500 Hz	58.6
630 Hz	62.1
800 Hz	63.5
1000 Hz	64.5
1250 Hz	63.9
1600 Hz	61.7
2000 Hz	50.8
2500 Hz	44.9
3150 Hz	49.3
4000 Hz	53.3
5000 Hz	56.4
6300 Hz	59.8

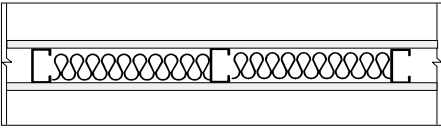
TL-93-326	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	CX	steel	G1	CX
thickness mm	16	90	90	16
gauge		25		
spacing mm		406		
surface density kg/m <sup>2</sup>	11.4		1.1	11.4
linear density kg/m		0.6		
total weight kg	84.8	16.2	8.0	84.8
fastener spacing - edge mm	305			305
fastener spacing - field mm	305			305
fastener top track pattern	b			b
fastener base track pattern	a			a
stud attached to top track				
double header				
orientation	vertical			vertical

TL-93-326  
STC 49



Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm steel studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	single layer of 16 mm type X gypsum board

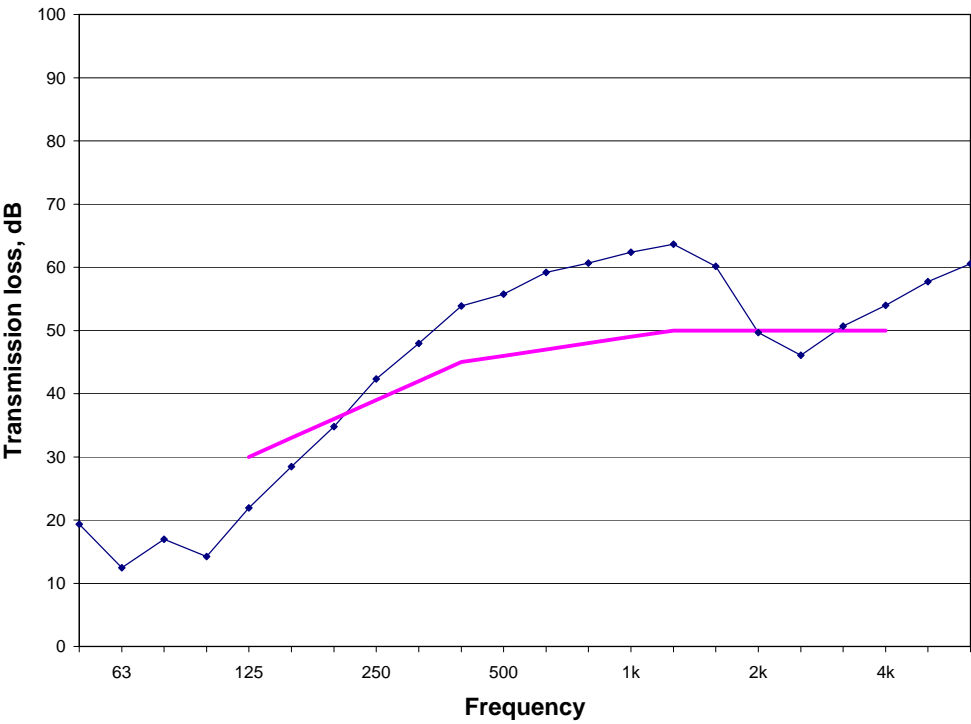
G16\_SS90(406)\_GFB90\_G16



TestID	TL-93-352
STC	46
50 Hz	19.3
63 Hz	12.4
80 Hz	17.0
100 Hz	14.2
125 Hz	21.9
160 Hz	28.5
200 Hz	34.8
250 Hz	42.3
315 Hz	48.0
400 Hz	53.9
500 Hz	55.8
630 Hz	59.2
800 Hz	60.6
1000 Hz	62.4
1250 Hz	63.7
1600 Hz	60.1
2000 Hz	49.7
2500 Hz	46.1
3150 Hz	50.7
4000 Hz	54.0
5000 Hz	57.7
6300 Hz	60.6

TL-93-352	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	CX	steel	G1	CX
thickness mm	16	90	90	16
gauge		25		
spacing mm		406		
surface density kg/m <sup>2</sup>	11.6		1.1	11.6
linear density kg/m		0.6		
total weight kg	85.9	16.2	8.0	86.1
fastener spacing - edge mm	305			305
fastener spacing - field mm	305			305
fastener top track pattern	d			d
fastener base track pattern	a			a
stud attached to top track				
double header				
orientation	vertical			vertical

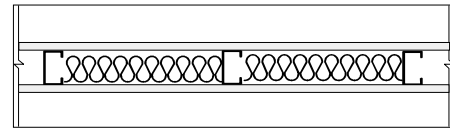
TL-93-352  
STC 46





Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm steel studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	single layer of 16 mm type X gypsum board

G16\_SS90(406)\_GFB90\_G16

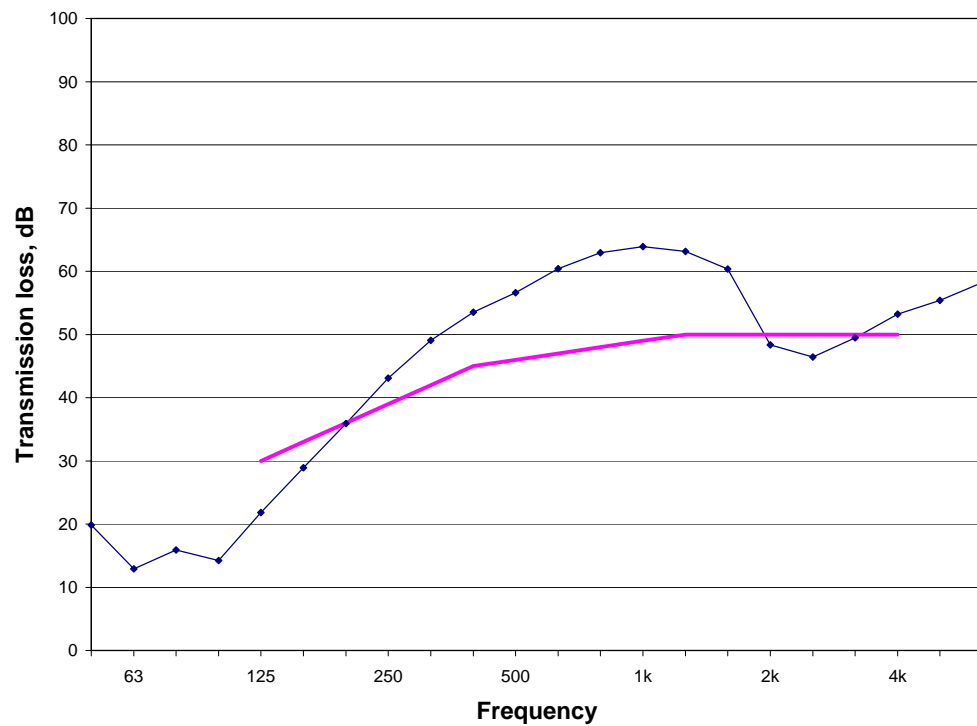


TestID	TL-93-360
STC	46
50 Hz	19.8
63 Hz	12.9
80 Hz	15.9
100 Hz	14.2
125 Hz	21.8
160 Hz	28.9
200 Hz	35.9
250 Hz	43.1
315 Hz	49.1
400 Hz	53.5
500 Hz	56.6
630 Hz	60.4
800 Hz	62.9
1000 Hz	63.9
1250 Hz	63.1
1600 Hz	60.3
2000 Hz	48.3
2500 Hz	46.4
3150 Hz	49.5
4000 Hz	53.2
5000 Hz	55.4
6300 Hz	58.2

TL-93-360

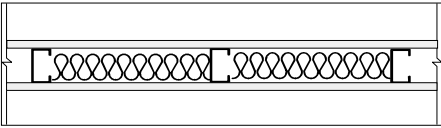
	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	CX	steel	G1	CX
thickness mm	16	90	90	16
gauge		25		
spacing mm		406		
surface density kg/m <sup>2</sup>	11.5		1.0	11.5
linear density kg/m		0.5		
total weight kg	85.4	14.1	7.8	85.4
fastener spacing - edge mm	305			305
fastener spacing - field mm	305			305
fastener top track pattern	d			d
fastener base track pattern	a			a
stud attached to top track				
double header				
orientation	vertical			vertical

TL-93-360  
STC 46



Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm steel studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	single layer of 16 mm type X gypsum board

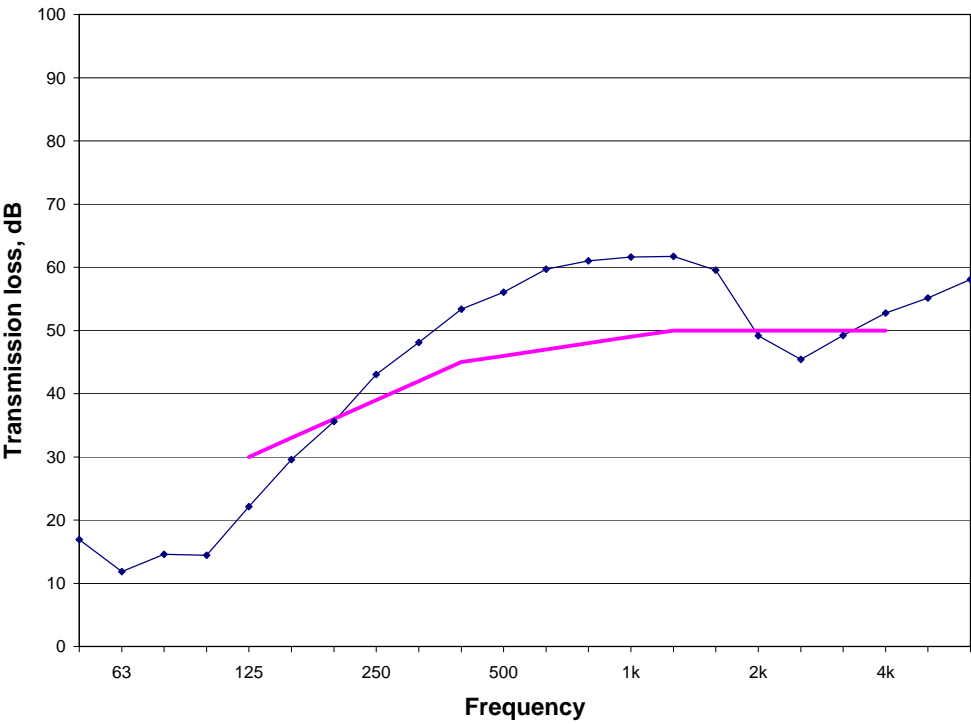
G16\_SS90(406)\_GFB90\_G16



TestID	TL-94-026
STC	46
50 Hz	16.9
63 Hz	11.8
80 Hz	14.6
100 Hz	14.4
125 Hz	22.1
160 Hz	29.5
200 Hz	35.6
250 Hz	43.0
315 Hz	48.1
400 Hz	53.4
500 Hz	56.0
630 Hz	59.7
800 Hz	61.0
1000 Hz	61.6
1250 Hz	61.7
1600 Hz	59.5
2000 Hz	49.2
2500 Hz	45.4
3150 Hz	49.2
4000 Hz	52.8
5000 Hz	55.1
6300 Hz	58.1

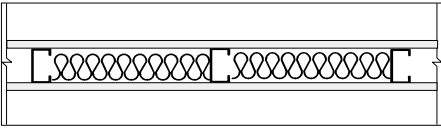
TL-94-026	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	CX	steel	G1	CX
thickness mm	16	90	90	16
gauge		25		
spacing mm		406		
surface density kg/m <sup>2</sup>	11.7		1.2	11.5
linear density kg/m		0.5		
total weight kg	87.2	15.0	8.6	85.2
fastener spacing - edge mm	305			305
fastener spacing - field mm	305			305
fastener top track pattern	a			a
fastener base track pattern	a			a
stud attached to top track				
double header				
orientation	vertical			vertical

TL-94-026  
STC 46



Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm steel studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	single layer of 16 mm type X gypsum board

G16\_SS90(406)\_GFB90\_G16

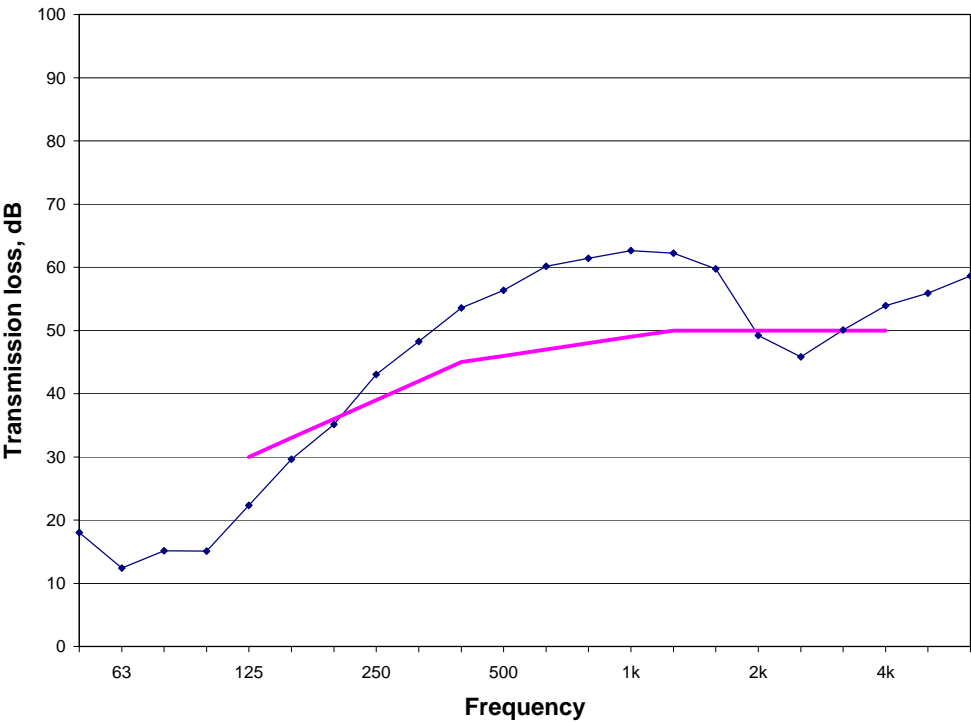


TestID	TL-94-027
STC	46
50 Hz	18.0
63 Hz	12.4
80 Hz	15.2
100 Hz	15.1
125 Hz	22.3
160 Hz	29.6
200 Hz	35.2
250 Hz	43.0
315 Hz	48.3
400 Hz	53.6
500 Hz	56.4
630 Hz	60.2
800 Hz	61.4
1000 Hz	62.6
1250 Hz	62.2
1600 Hz	59.7
2000 Hz	49.2
2500 Hz	45.8
3150 Hz	50.1
4000 Hz	53.9
5000 Hz	55.9
6300 Hz	58.6

TL-94-027

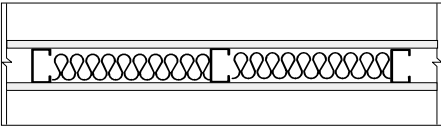
	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	CX	steel	G1	CX
thickness mm	16	90	90	16
gauge		25		
spacing mm		406		
surface density kg/m <sup>2</sup>	11.7		1.2	11.5
linear density kg/m		0.5		
total weight kg	87.2	15.0	8.6	85.2
fastener spacing - edge mm	305			305
fastener spacing - field mm	305			305
fastener top track pattern	b			b
fastener base track pattern	a			a
stud attached to top track				
double header				
orientation	vertical			vertical

TL-94-027  
STC 46



Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm steel studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	single layer of 16 mm type X gypsum board

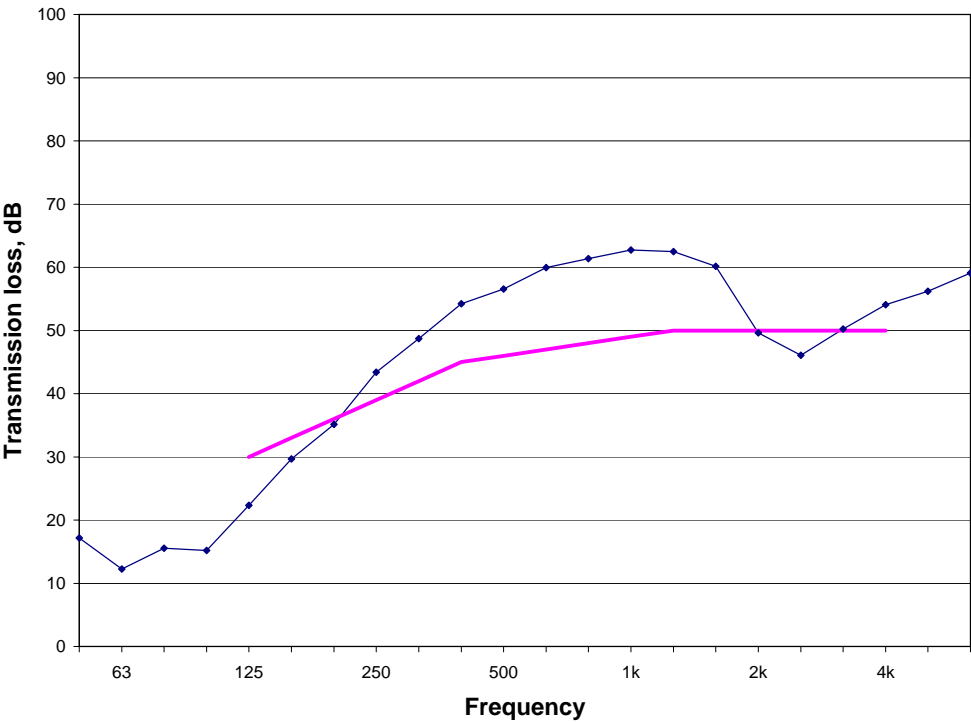
G16\_SS90(406)\_GFB90\_G16



TestID	TL-94-028
STC	46
50 Hz	17.2
63 Hz	12.2
80 Hz	15.6
100 Hz	15.2
125 Hz	22.3
160 Hz	29.7
200 Hz	35.1
250 Hz	43.4
315 Hz	48.7
400 Hz	54.2
500 Hz	56.6
630 Hz	59.9
800 Hz	61.3
1000 Hz	62.7
1250 Hz	62.5
1600 Hz	60.2
2000 Hz	49.6
2500 Hz	46.1
3150 Hz	50.2
4000 Hz	54.1
5000 Hz	56.2
6300 Hz	59.1

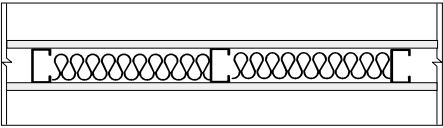
TL-94-028	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	CX	steel	G1	CX
thickness mm	16	90	90	16
gauge		25		
spacing mm		406		
surface density kg/m <sup>2</sup>	11.7		1.2	11.5
linear density kg/m		0.5		
total weight kg	87.2	15.0	8.6	85.2
fastener spacing - edge mm	305			305
fastener spacing - field mm	305			305
fastener top track pattern	c			c
fastener base track pattern	a			a
stud attached to top track				
double header				
orientation	vertical			vertical

TL-94-028  
STC 46



Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm steel studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	single layer of 16 mm type X gypsum board

G16\_SS90(406)\_GFB90\_G16

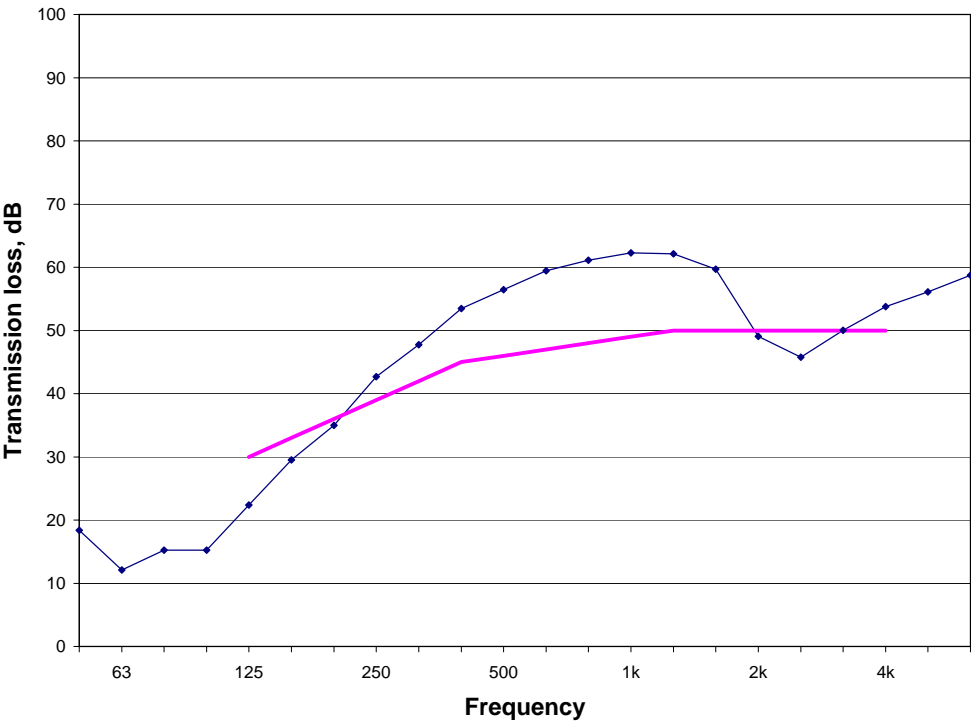


TestID	TL-94-029
STC	46
50 Hz	18.4
63 Hz	12.1
80 Hz	15.2
100 Hz	15.3
125 Hz	22.4
160 Hz	29.5
200 Hz	35.0
250 Hz	42.7
315 Hz	47.8
400 Hz	53.5
500 Hz	56.4
630 Hz	59.5
800 Hz	61.1
1000 Hz	62.3
1250 Hz	62.1
1600 Hz	59.7
2000 Hz	49.1
2500 Hz	45.8
3150 Hz	50.0
4000 Hz	53.8
5000 Hz	56.1
6300 Hz	58.7

TL-94-029

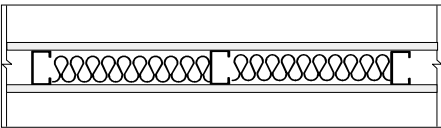
	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	CX	steel	G1	CX
thickness mm	16	90	90	16
gauge		25		
spacing mm		406		
surface density kg/m <sup>2</sup>	11.7		1.2	11.5
linear density kg/m		0.5		
total weight kg	87.2	15.0	8.6	85.2
fastener spacing - edge mm	305			305
fastener spacing - field mm	305			305
fastener top track pattern	d			d
fastener base track pattern	a			a
stud attached to top track				
double header				
orientation	vertical			vertical

TL-94-029  
STC 46



G16\_SS90(406)\_MFB40\_G16

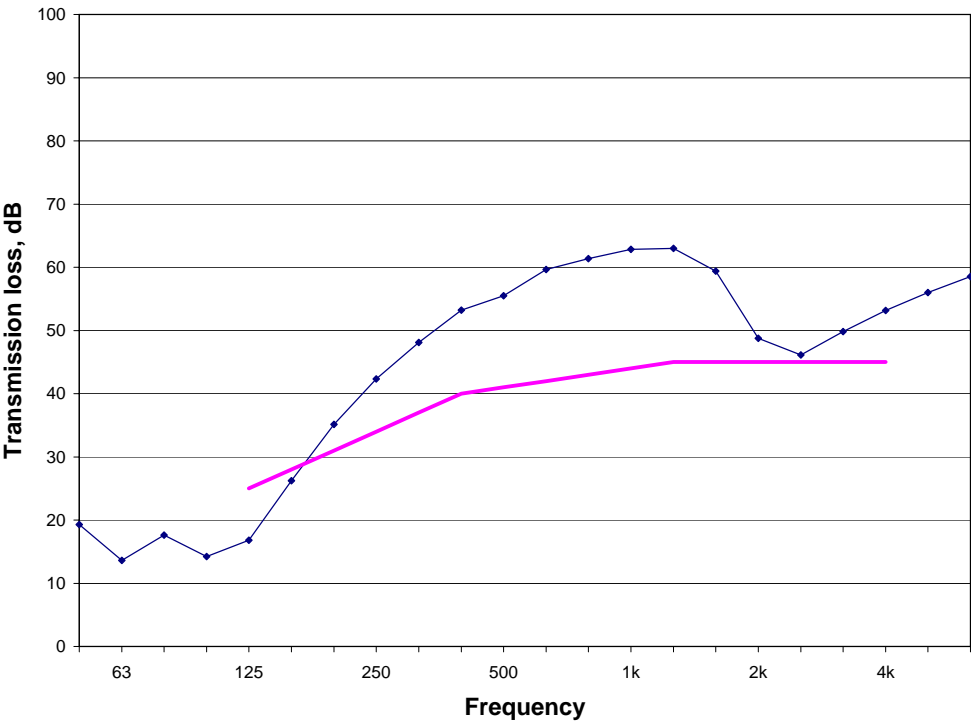
Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm steel studs at 406 mm on centre
3	40 mm of mineral fibre insulation in cavity
4	single layer of 16 mm type X gypsum board



TestID	TL-93-340
STC	41
50 Hz	19.3
63 Hz	13.6
80 Hz	17.6
100 Hz	14.2
125 Hz	16.8
160 Hz	26.2
200 Hz	35.1
250 Hz	42.3
315 Hz	48.1
400 Hz	53.2
500 Hz	55.5
630 Hz	59.6
800 Hz	61.4
1000 Hz	62.8
1250 Hz	63.0
1600 Hz	59.4
2000 Hz	48.8
2500 Hz	46.1
3150 Hz	49.8
4000 Hz	53.2
5000 Hz	56.0
6300 Hz	58.5

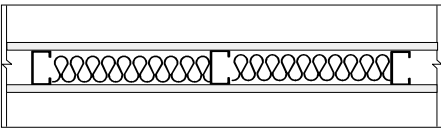
TL-93-340	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	CX	steel	M2	CX
thickness mm	16	90	40	16
gauge		25		
spacing mm		406		
surface density kg/m <sup>2</sup>	11.5		2.1	11.6
linear density kg/m		0.6		
total weight kg	85.7	16.2	15.2	85.9
fastener spacing - edge mm	305			305
fastener spacing - field mm	305			305
fastener top track pattern	d			d
fastener base track pattern	a			a
stud attached to top track				
double header				
orientation	vertical			vertical

TL-93-340  
STC 41



G16\_SS90(406)\_MFB75\_G16

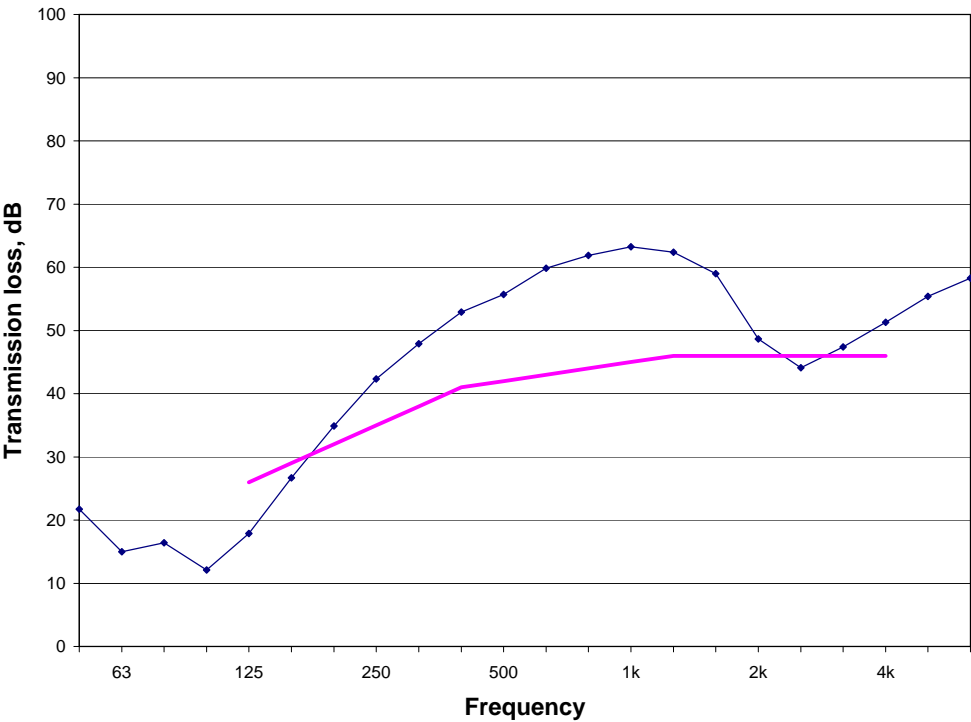
Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm steel studs at 406 mm on centre
3	75 mm of mineral fibre insulation in cavity
4	single layer of 16 mm type X gypsum board



TestID	TL-93-002
STC	42
50 Hz	21.7
63 Hz	15.0
80 Hz	16.4
100 Hz	12.1
125 Hz	17.9
160 Hz	26.7
200 Hz	34.9
250 Hz	42.3
315 Hz	47.9
400 Hz	52.9
500 Hz	55.7
630 Hz	59.9
800 Hz	61.9
1000 Hz	63.2
1250 Hz	62.4
1600 Hz	59.0
2000 Hz	48.7
2500 Hz	44.1
3150 Hz	47.4
4000 Hz	51.3
5000 Hz	55.4
6300 Hz	58.3

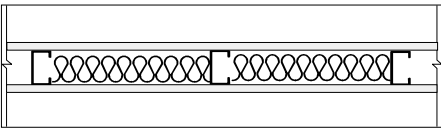
TL-93-002	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	CX	steel	M2	CX
thickness mm	16	90	75	16
gauge		25		
spacing mm		406		
surface density kg/m <sup>2</sup>	10.9		3.2	10.8
linear density kg/m		0.6		
total weight kg	81.0	16.0	24.0	80.6
fastener spacing - edge mm	305			305
fastener spacing - field mm	305			305
fastener top track pattern	c			c
fastener base track pattern	c			c
stud attached to top track		yes		
double header				
orientation	vertical			vertical

TL-93-002  
STC 42



G16\_SS90(406)\_MFB75\_G16

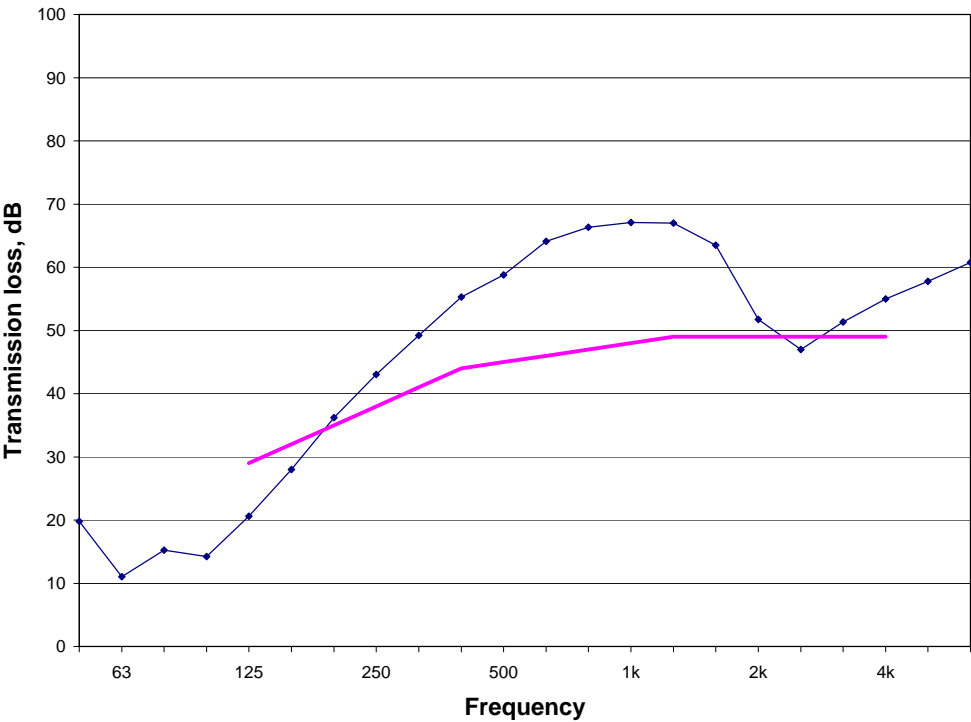
Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm steel studs at 406 mm on centre
3	75 mm of mineral fibre insulation in cavity
4	single layer of 16 mm type X gypsum board



TestID	TL-93-335
STC	45
50 Hz	19.8
63 Hz	11.1
80 Hz	15.2
100 Hz	14.2
125 Hz	20.6
160 Hz	28.0
200 Hz	36.2
250 Hz	43.1
315 Hz	49.2
400 Hz	55.3
500 Hz	58.8
630 Hz	64.1
800 Hz	66.3
1000 Hz	67.1
1250 Hz	67.0
1600 Hz	63.5
2000 Hz	51.7
2500 Hz	47.0
3150 Hz	51.4
4000 Hz	55.0
5000 Hz	57.8
6300 Hz	60.7

TL-93-335	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	CX	steel	M2	CX
thickness mm	16	90	75	16
gauge		25		
spacing mm		406		
surface density kg/m <sup>2</sup>	11.5		3.7	11.4
linear density kg/m		0.6		
total weight kg	85.2	16.2	26.3	84.8
fastener spacing - edge mm	305			305
fastener spacing - field mm	305			305
fastener top track pattern	d			d
fastener base track pattern	a			a
stud attached to top track				
double header				
orientation	vertical			vertical

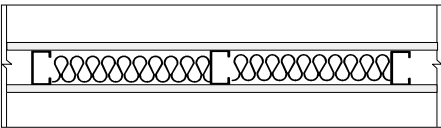
TL-93-335  
STC 45





G16\_SS90(406)\_MFB75\_G16

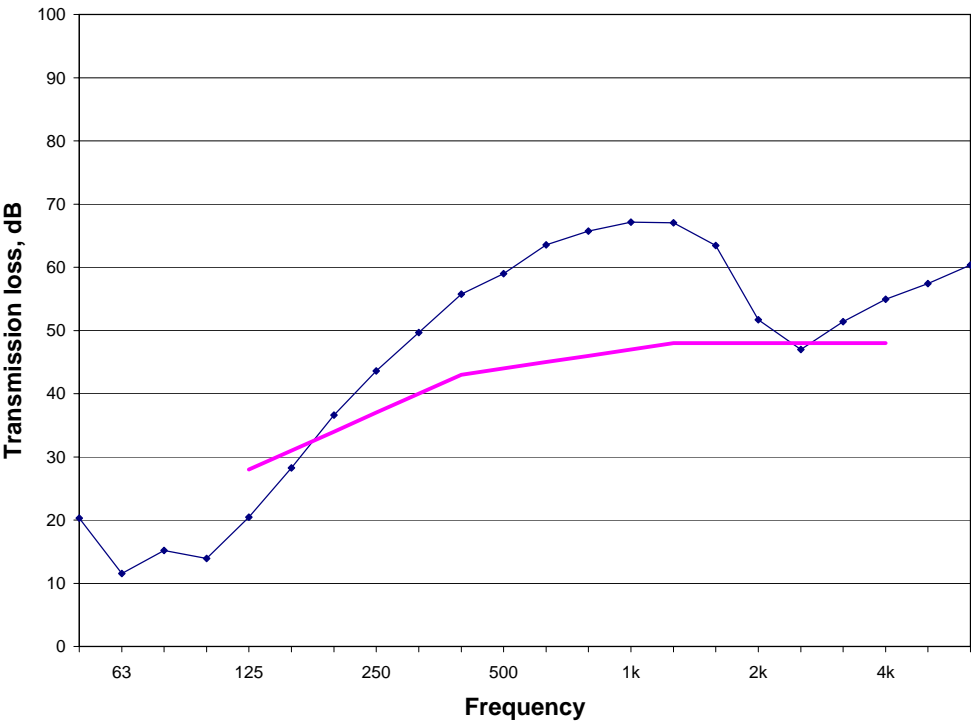
Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm steel studs at 406 mm on centre
3	75 mm of mineral fibre insulation in cavity
4	single layer of 16 mm type X gypsum board



TestID	TL-93-336
STC	44
50 Hz	20.3
63 Hz	11.5
80 Hz	15.2
100 Hz	13.9
125 Hz	20.4
160 Hz	28.3
200 Hz	36.6
250 Hz	43.6
315 Hz	49.7
400 Hz	55.7
500 Hz	59.0
630 Hz	63.5
800 Hz	65.7
1000 Hz	67.1
1250 Hz	67.1
1600 Hz	63.5
2000 Hz	51.7
2500 Hz	47.0
3150 Hz	51.4
4000 Hz	54.9
5000 Hz	57.4
6300 Hz	60.4

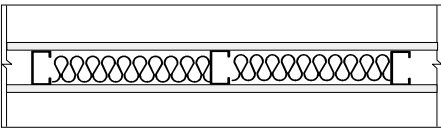
TL-93-336	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	CX	steel	M2	CX
thickness mm	16	90	75	16
gauge		25		
spacing mm		406		
surface density kg/m <sup>2</sup>	11.5		3.7	11.4
linear density kg/m		0.6		
total weight kg	85.2	16.2	26.3	84.8
fastener spacing - edge mm	305			305
fastener spacing - field mm	305			305
fastener top track pattern	c			c
fastener base track pattern	a			a
stud attached to top track				
double header				
orientation	vertical			vertical

TL-93-336  
STC 44



G16\_SS90(406)\_MFB83\_G16

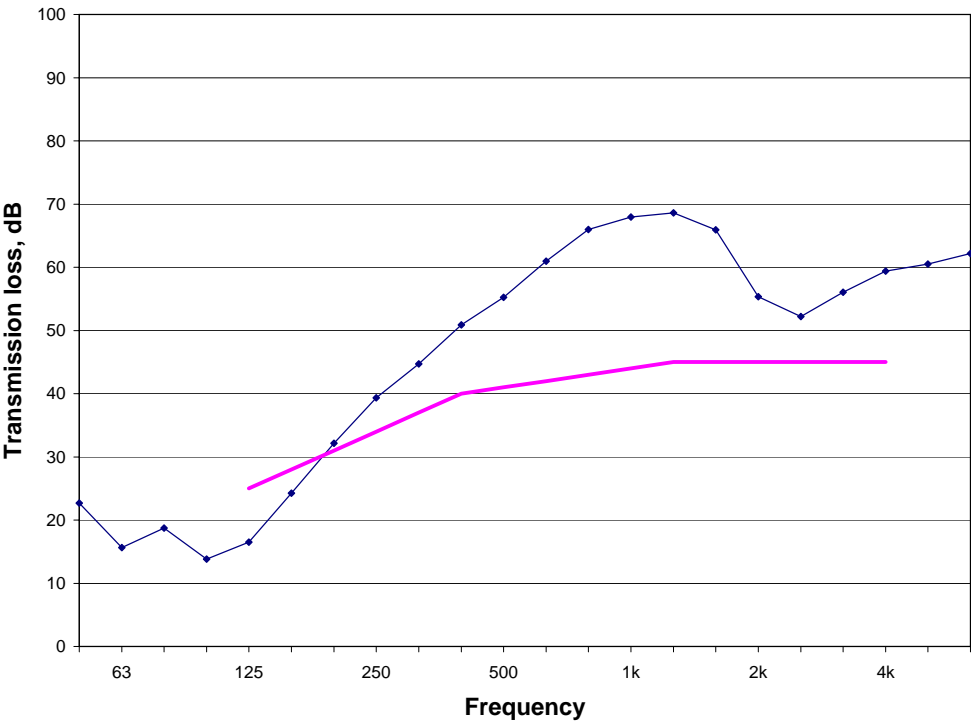
Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm steel studs at 406 mm on centre
3	83 mm of mineral fibre insulation in cavity
4	single layer of 16 mm type X gypsum board



TestID	TL-93-338
STC	41
50 Hz	22.7
63 Hz	15.7
80 Hz	18.7
100 Hz	13.8
125 Hz	16.5
160 Hz	24.3
200 Hz	32.1
250 Hz	39.3
315 Hz	44.7
400 Hz	50.9
500 Hz	55.2
630 Hz	60.9
800 Hz	66.0
1000 Hz	67.9
1250 Hz	68.6
1600 Hz	65.9
2000 Hz	55.3
2500 Hz	52.2
3150 Hz	56.1
4000 Hz	59.4
5000 Hz	60.5
6300 Hz	62.2

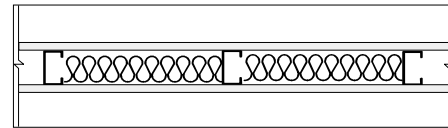
TL-93-338	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	CX	steel	M3	CX
thickness mm	16	90	83	16
gauge		25		
spacing mm		406		
surface density kg/m <sup>2</sup>	11.5		8.2	11.6
linear density kg/m		0.6		
total weight kg	85.2	16.2	60.7	86.0
fastener spacing - edge mm	305			305
fastener spacing - field mm	305			305
fastener top track pattern	d			d
fastener base track pattern	a			a
stud attached to top track				
double header				
orientation	vertical			vertical

TL-93-338  
STC 41



G16\_SS90(406)\_MFB83\_G16

Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm steel studs at 406 mm on centre
3	83 mm of mineral fibre insulation in cavity
4	single layer of 16 mm type X gypsum board

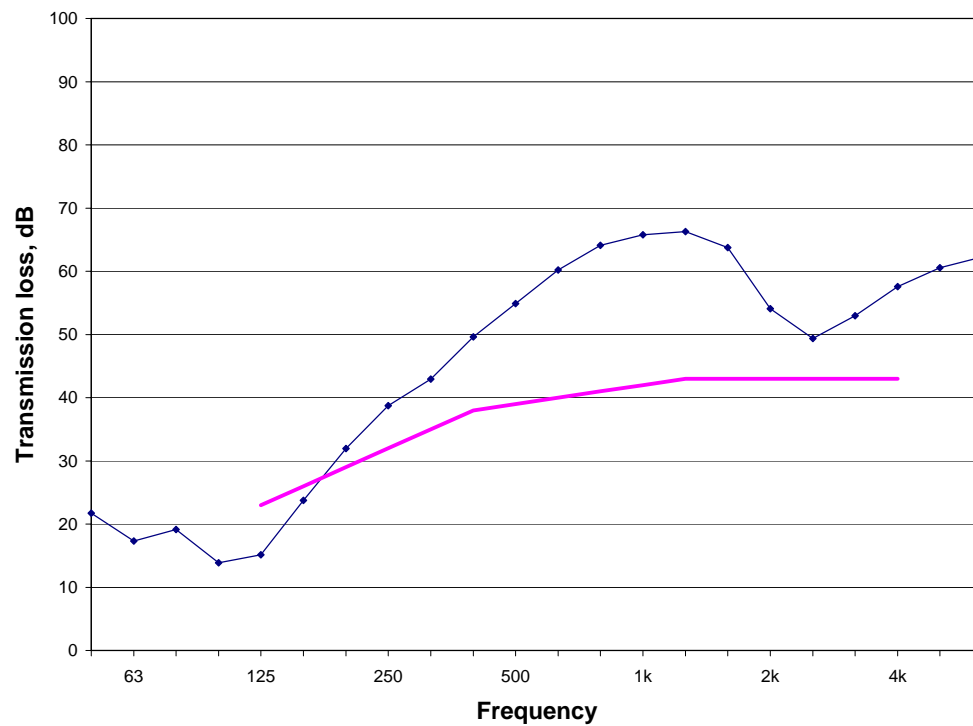


TestID	TL-93-003
STC	39
50 Hz	21.7
63 Hz	17.3
80 Hz	19.2
100 Hz	13.9
125 Hz	15.2
160 Hz	23.7
200 Hz	32.0
250 Hz	38.7
315 Hz	42.9
400 Hz	49.6
500 Hz	54.9
630 Hz	60.2
800 Hz	64.1
1000 Hz	65.8
1250 Hz	66.3
1600 Hz	63.8
2000 Hz	54.1
2500 Hz	49.4
3150 Hz	53.0
4000 Hz	57.6
5000 Hz	60.6
6300 Hz	62.3

TL-93-003

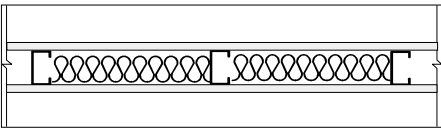
	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	CX	steel	M3	CX
thickness mm	16	90	83	16
gauge		25		
spacing mm		406		
surface density kg/m <sup>2</sup>	10.9		8.1	10.9
linear density kg/m		0.6		
total weight kg	81.0	16.0	60.5	80.7
fastener spacing - edge mm	305			305
fastener spacing - field mm	305			305
fastener top track pattern	c			c
fastener base track pattern	c			c
stud attached to top track		yes		
double header				
orientation	vertical			vertical

TL-93-003  
STC 39



G16\_SS90(406)\_MFB90\_G16

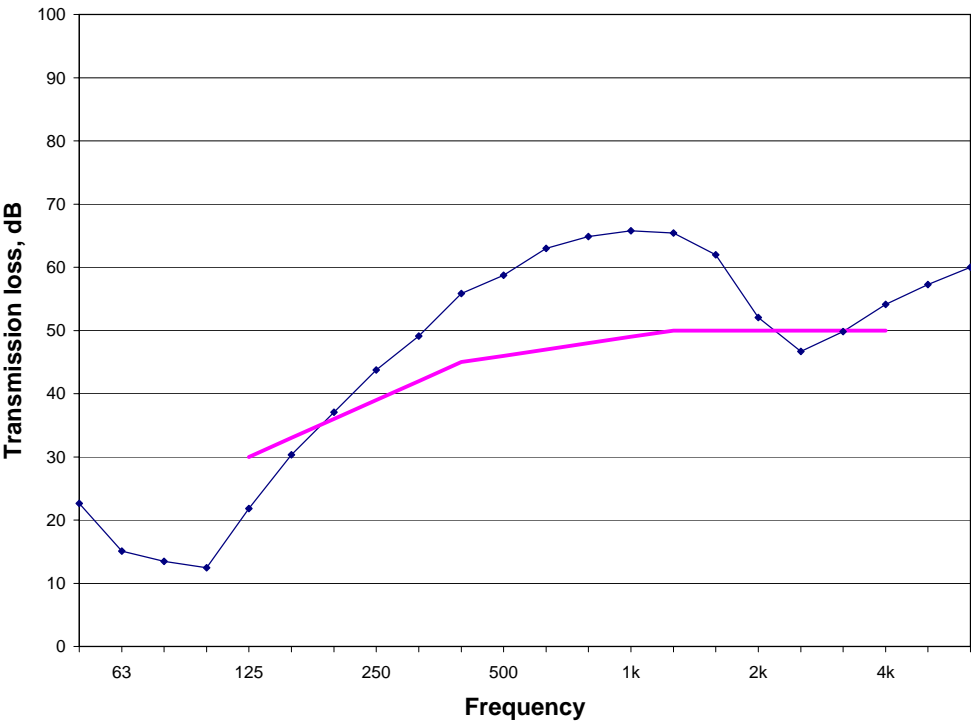
Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm steel studs at 406 mm on centre
3	90 mm of mineral fibre insulation in cavity
4	single layer of 16 mm type X gypsum board



TestID	TL-92-445
STC	46
50 Hz	22.7
63 Hz	15.1
80 Hz	13.5
100 Hz	12.5
125 Hz	21.8
160 Hz	30.3
200 Hz	37.0
250 Hz	43.7
315 Hz	49.1
400 Hz	55.9
500 Hz	58.7
630 Hz	63.0
800 Hz	64.9
1000 Hz	65.8
1250 Hz	65.4
1600 Hz	62.0
2000 Hz	52.0
2500 Hz	46.7
3150 Hz	49.8
4000 Hz	54.1
5000 Hz	57.3
6300 Hz	60.0

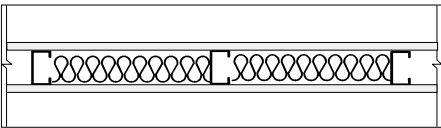
	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	CX	steel	M1	CX
thickness mm	16	90	90	16
gauge		25		
spacing mm		406		
surface density kg/m <sup>2</sup>	11.0		3.0	10.9
linear density kg/m		0.6		
total weight kg	81.9	16.0	22.6	80.8
fastener spacing - edge mm	305			305
fastener spacing - field mm	305			305
fastener top track pattern	c			c
fastener base track pattern	c			c
stud attached to top track		yes		
double header				
orientation	vertical			vertical

TL-92-445  
STC 46



G16\_SS90(406)\_MFB90\_G16

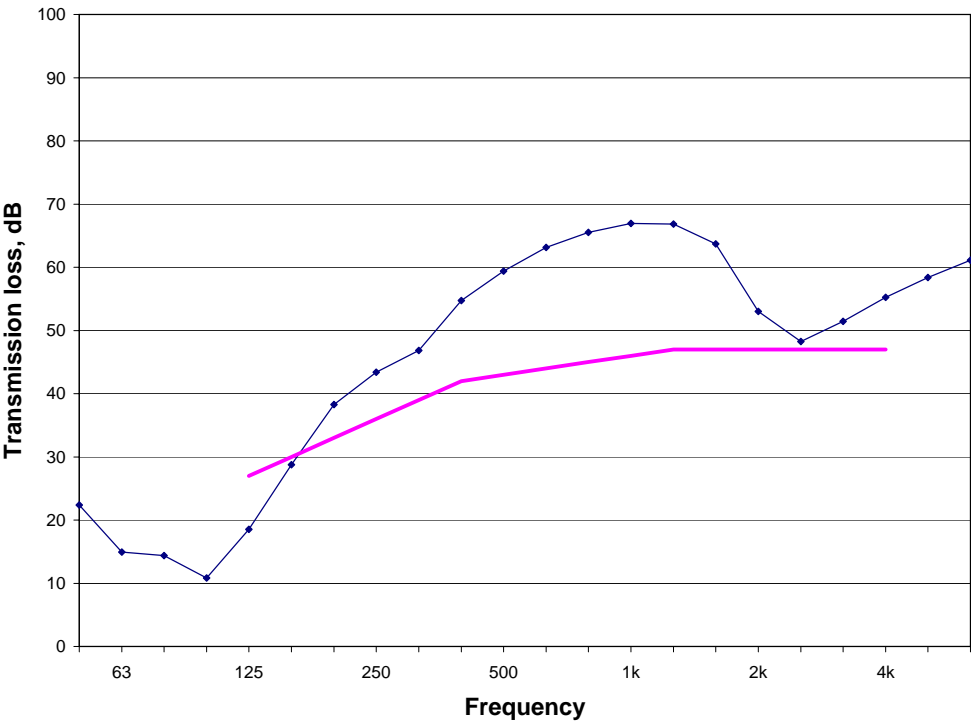
Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm steel studs at 406 mm on centre
3	90 mm of mineral fibre insulation in cavity
4	single layer of 16 mm type X gypsum board



TestID	TL-93-001
STC	43
50 Hz	22.4
63 Hz	14.9
80 Hz	14.4
100 Hz	10.8
125 Hz	18.5
160 Hz	28.8
200 Hz	38.3
250 Hz	43.4
315 Hz	46.8
400 Hz	54.7
500 Hz	59.4
630 Hz	63.1
800 Hz	65.5
1000 Hz	66.9
1250 Hz	66.8
1600 Hz	63.7
2000 Hz	53.0
2500 Hz	48.3
3150 Hz	51.4
4000 Hz	55.2
5000 Hz	58.4
6300 Hz	61.1

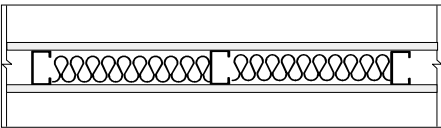
TL-93-001	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	CX	steel	M2	CX
thickness mm	16	90	90	16
gauge		25		
spacing mm		406		
surface density kg/m <sup>2</sup>	11.0		3.8	10.8
linear density kg/m		0.6		
total weight kg	81.9	16.0	28.2	80.6
fastener spacing - edge mm	305			305
fastener spacing - field mm	305			305
fastener top track pattern	c			c
fastener base track pattern	c			c
stud attached to top track		yes		
double header				
orientation	vertical			vertical

TL-93-001  
STC 43



G16\_SS90(406)\_MFB90\_G16

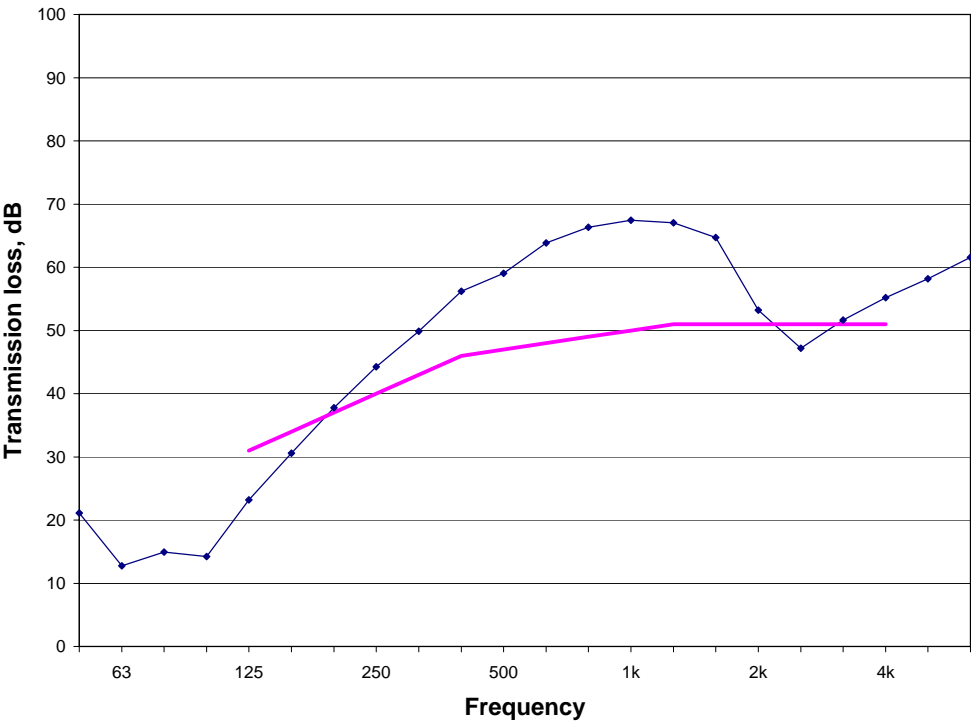
Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm steel studs at 406 mm on centre
3	90 mm of mineral fibre insulation in cavity
4	single layer of 16 mm type X gypsum board



TestID	TL-93-327
STC	47
50 Hz	21.1
63 Hz	12.7
80 Hz	14.9
100 Hz	14.3
125 Hz	23.2
160 Hz	30.6
200 Hz	37.8
250 Hz	44.2
315 Hz	49.9
400 Hz	56.2
500 Hz	59.1
630 Hz	63.8
800 Hz	66.3
1000 Hz	67.5
1250 Hz	67.0
1600 Hz	64.7
2000 Hz	53.2
2500 Hz	47.2
3150 Hz	51.7
4000 Hz	55.2
5000 Hz	58.2
6300 Hz	61.5

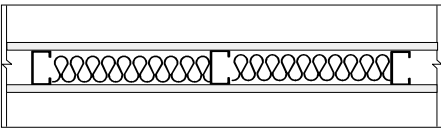
TL-93-327	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	CX	steel	M1	CX
thickness mm	16	90	90	16
gauge		25		
spacing mm		406		
surface density kg/m <sup>2</sup>	11.5		3.2	11.4
linear density kg/m		0.6		
total weight kg	85.4	16.2	22.7	84.8
fastener spacing - edge mm	305			305
fastener spacing - field mm	305			305
fastener top track pattern	d			d
fastener base track pattern	a			a
stud attached to top track				
double header				
orientation	vertical			vertical

TL-93-327  
STC 47



G16\_SS90(406)\_MFB90\_G16

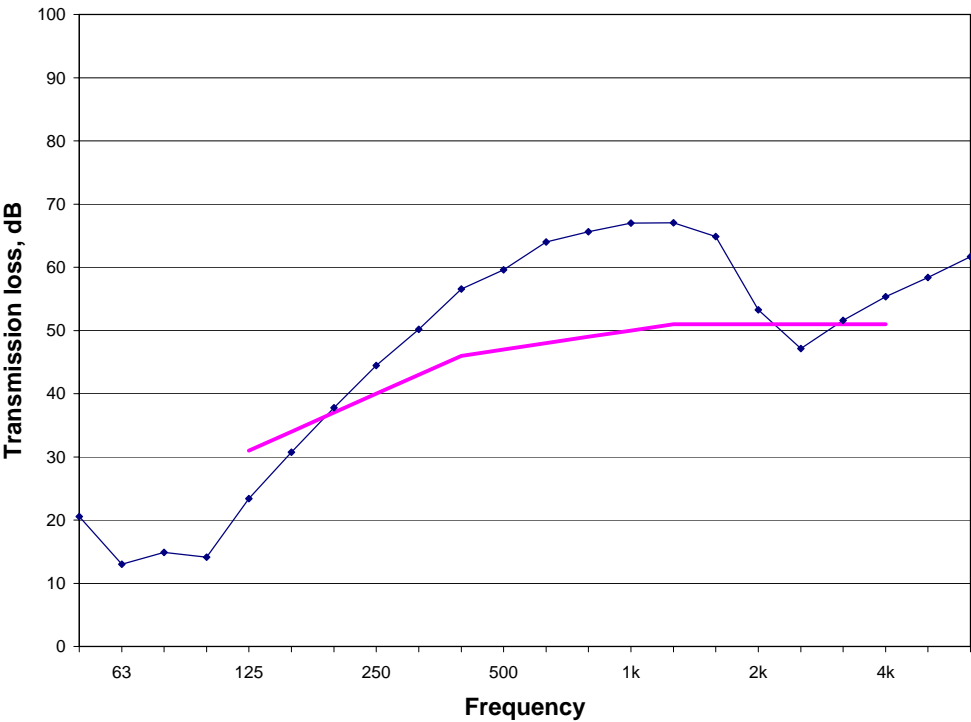
Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm steel studs at 406 mm on centre
3	90 mm of mineral fibre insulation in cavity
4	single layer of 16 mm type X gypsum board



TestID	TL-93-328
STC	47
50 Hz	20.5
63 Hz	13.0
80 Hz	14.9
100 Hz	14.1
125 Hz	23.4
160 Hz	30.7
200 Hz	37.8
250 Hz	44.5
315 Hz	50.2
400 Hz	56.6
500 Hz	59.6
630 Hz	64.0
800 Hz	65.6
1000 Hz	67.0
1250 Hz	67.0
1600 Hz	64.8
2000 Hz	53.3
2500 Hz	47.1
3150 Hz	51.6
4000 Hz	55.3
5000 Hz	58.4
6300 Hz	61.7

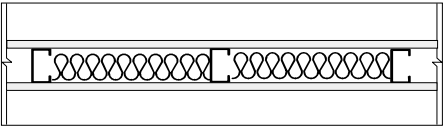
TL-93-328	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	CX	steel	M1	CX
thickness mm	16	90	90	16
gauge		25		
spacing mm		406		
surface density kg/m <sup>2</sup>	11.5		3.2	11.4
linear density kg/m		0.6		
total weight kg	85.4	16.2	22.7	84.8
fastener spacing - edge mm	305			305
fastener spacing - field mm	305			305
fastener top track pattern	c			c
fastener base track pattern	a			a
stud attached to top track				
double header				
orientation	vertical			vertical

TL-93-328  
STC 47



Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm steel studs at 610 mm on centre
3	90 mm of glass fibre insulation in cavity
4	single layer of 16 mm type X gypsum board

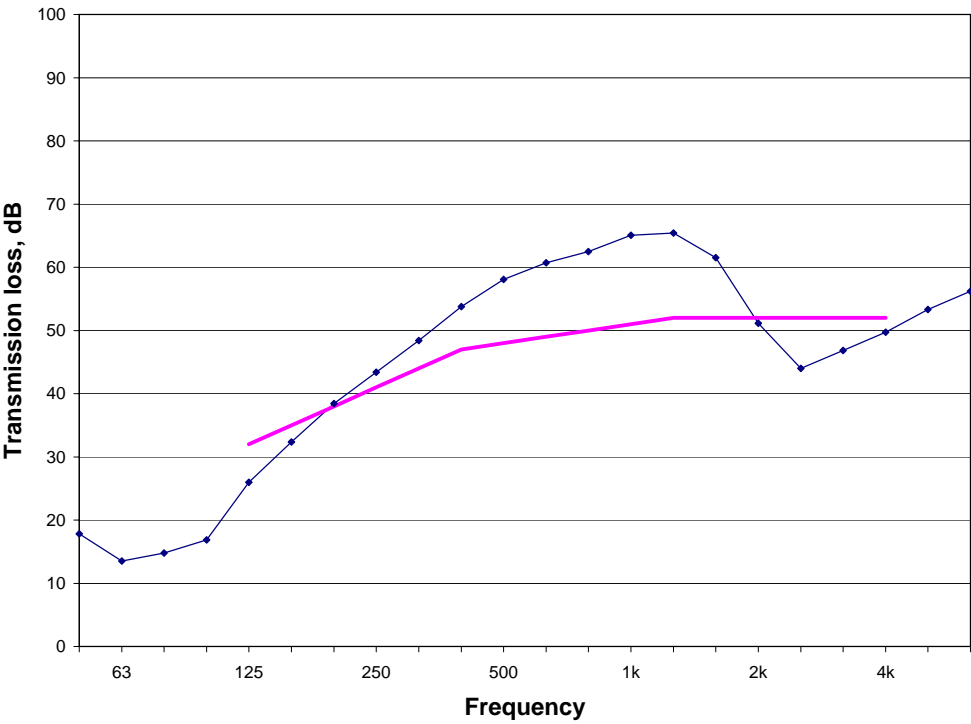
G16\_SS90(610)\_GFB90\_G16



TestID	TL-92-348
STC	48
50 Hz	17.8
63 Hz	13.5
80 Hz	14.8
100 Hz	16.8
125 Hz	26.0
160 Hz	32.4
200 Hz	38.4
250 Hz	43.4
315 Hz	48.4
400 Hz	53.8
500 Hz	58.1
630 Hz	60.7
800 Hz	62.5
1000 Hz	65.1
1250 Hz	65.4
1600 Hz	61.5
2000 Hz	51.1
2500 Hz	44.0
3150 Hz	46.8
4000 Hz	49.7
5000 Hz	53.3
6300 Hz	56.2

TL-92-348	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	CX	steel	G1	CX
thickness mm	16	90	90	16
gauge		25		
spacing mm		610		
surface density kg/m <sup>2</sup>	11.2		1.2	11.2
linear density kg/m		0.5		
total weight kg	83.5	11.4	8.8	83.6
fastener spacing - edge mm	305			305
fastener spacing - field mm	305			305
fastener top track pattern	c			c
fastener base track pattern	c			c
stud attached to top track		yes		
double header				
orientation	vertical			vertical

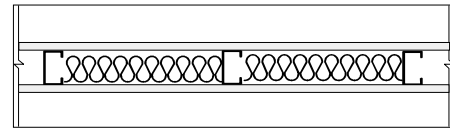
TL-92-348  
STC 48





Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm steel studs at 610 mm on centre
3	90 mm of glass fibre insulation in cavity
4	single layer of 16 mm type X gypsum board

G16\_SS90(610)\_GFB90\_G16

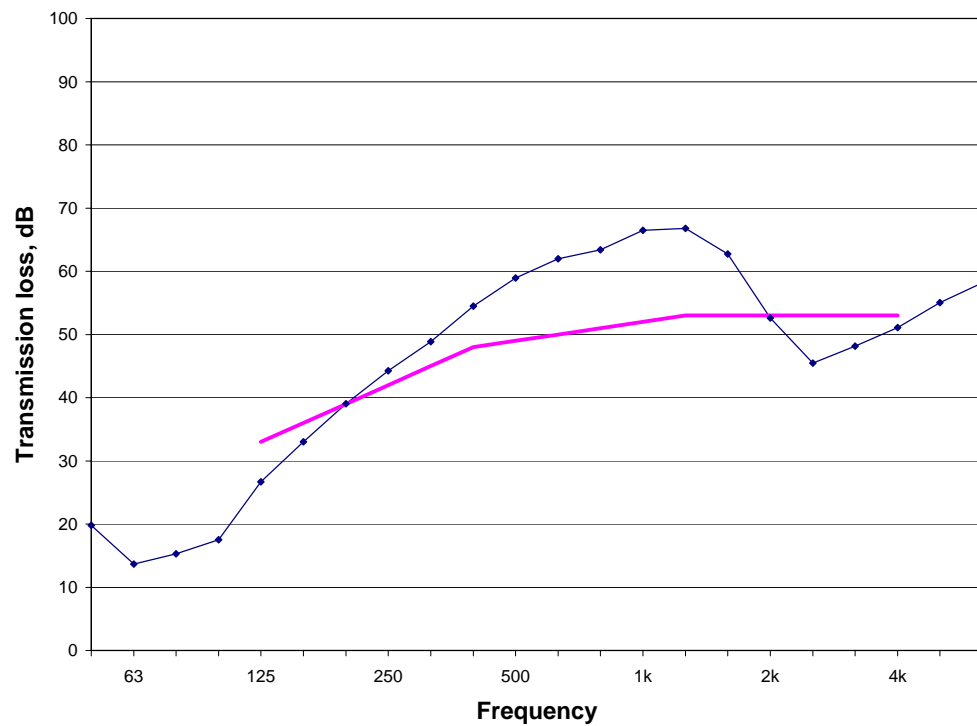


TestID	TL-92-367
STC	49
50 Hz	19.8
63 Hz	13.7
80 Hz	15.3
100 Hz	17.5
125 Hz	26.7
160 Hz	33.0
200 Hz	39.0
250 Hz	44.2
315 Hz	48.9
400 Hz	54.5
500 Hz	58.9
630 Hz	62.0
800 Hz	63.4
1000 Hz	66.5
1250 Hz	66.8
1600 Hz	62.8
2000 Hz	52.6
2500 Hz	45.5
3150 Hz	48.2
4000 Hz	51.1
5000 Hz	55.0
6300 Hz	58.2

TL-92-367

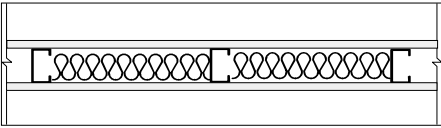
	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	CX	steel	G1	CX
thickness mm	16	90	90	16
gauge		25		
spacing mm		610		
surface density kg/m <sup>2</sup>	11.2		1.2	11.2
linear density kg/m		0.5		
total weight kg	83.5	11.4	8.8	83.6
fastener spacing - edge mm	305			305
fastener spacing - field mm	305			305
fastener top track pattern	c			c
fastener base track pattern	c			c
stud attached to top track		yes		
double header				
orientation	vertical			vertical

TL-92-367  
STC 49



Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm steel studs at 610 mm on centre
3	90 mm of glass fibre insulation in cavity
4	single layer of 16 mm type X gypsum board

G16\_SS90(610)\_GFB90\_G16

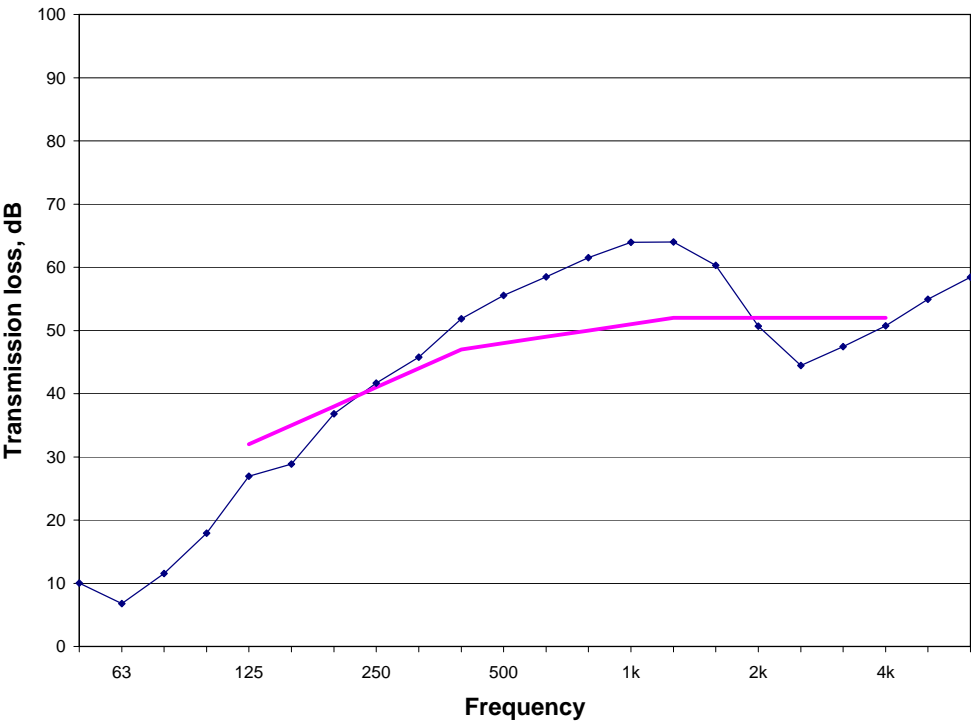


TestID	TL-92-399
STC	48
50 Hz	10.0
63 Hz	6.8
80 Hz	11.5
100 Hz	17.9
125 Hz	26.9
160 Hz	28.8
200 Hz	36.8
250 Hz	41.7
315 Hz	45.7
400 Hz	51.9
500 Hz	55.6
630 Hz	58.5
800 Hz	61.5
1000 Hz	64.0
1250 Hz	64.0
1600 Hz	60.3
2000 Hz	50.7
2500 Hz	44.4
3150 Hz	47.5
4000 Hz	50.7
5000 Hz	55.0
6300 Hz	58.5

TL-92-399

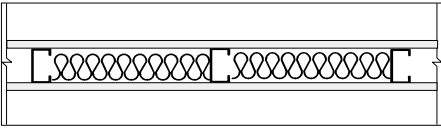
	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	CX	steel	G1	CX
thickness mm	16	90	90	16
gauge		25		
spacing mm		610		
surface density kg/m <sup>2</sup>	11.2		1.2	10.9
linear density kg/m		0.6		
total weight kg	83.3	12.6	8.7	81.2
fastener spacing - edge mm	305			305
fastener spacing - field mm	305			305
fastener top track pattern	c			c
fastener base track pattern	c			c
stud attached to top track		yes		
double header				
orientation	vertical			vertical

TL-92-399  
STC 48



Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm steel studs at 610 mm on centre
3	90 mm of glass fibre insulation in cavity
4	single layer of 16 mm type X gypsum board

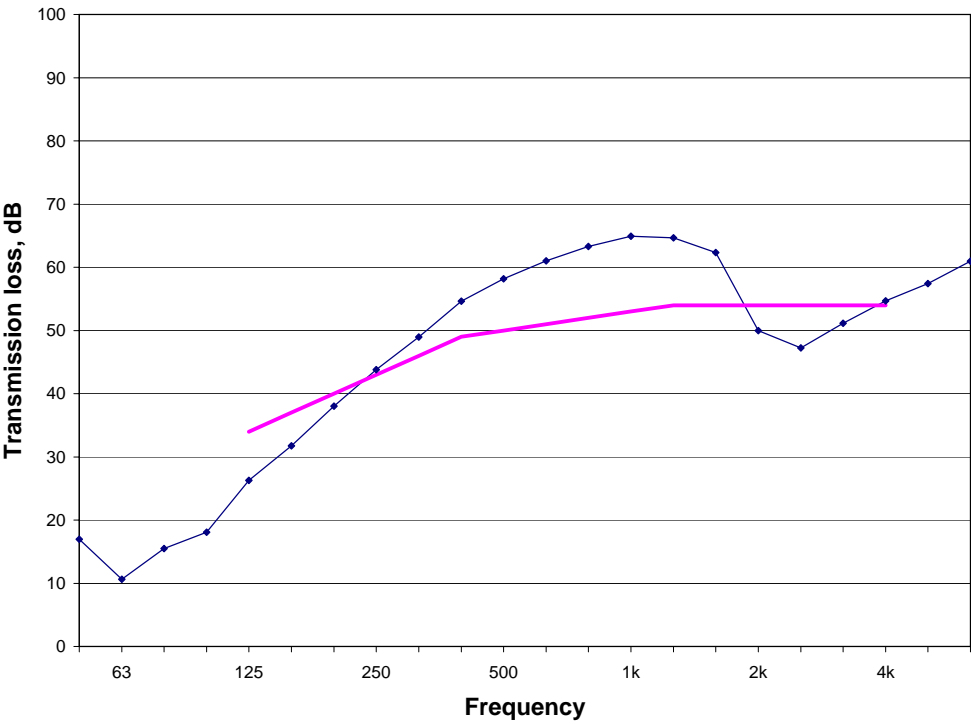
G16\_SS90(610)\_GFB90\_G16



TestID	TL-93-324
STC	50
50 Hz	17.0
63 Hz	10.6
80 Hz	15.5
100 Hz	18.1
125 Hz	26.3
160 Hz	31.8
200 Hz	38.0
250 Hz	43.8
315 Hz	49.0
400 Hz	54.6
500 Hz	58.2
630 Hz	61.0
800 Hz	63.3
1000 Hz	64.9
1250 Hz	64.7
1600 Hz	62.3
2000 Hz	50.0
2500 Hz	47.2
3150 Hz	51.1
4000 Hz	54.7
5000 Hz	57.4
6300 Hz	61.0

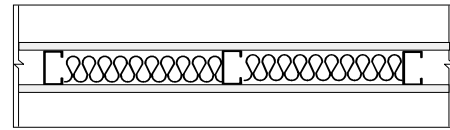
TL-93-324	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	CX	steel	G1	CX
thickness mm	16	90	90	16
gauge		25		
spacing mm		610		
surface density kg/m <sup>2</sup>	11.4		1.1	11.3
linear density kg/m		0.5		
total weight kg	84.7	10.6	8.0	84.2
fastener spacing - edge mm	305			305
fastener spacing - field mm	305			305
fastener top track pattern	b			b
fastener base track pattern	a			a
stud attached to top track		yes		
double header				
orientation	vertical			vertical

TL-93-324  
STC 50



Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm steel studs at 610 mm on centre
3	40 mm of mineral fibre insulation in cavity
4	single layer of 16 mm type X gypsum board

G16\_SS90(610)\_MFB40\_G16

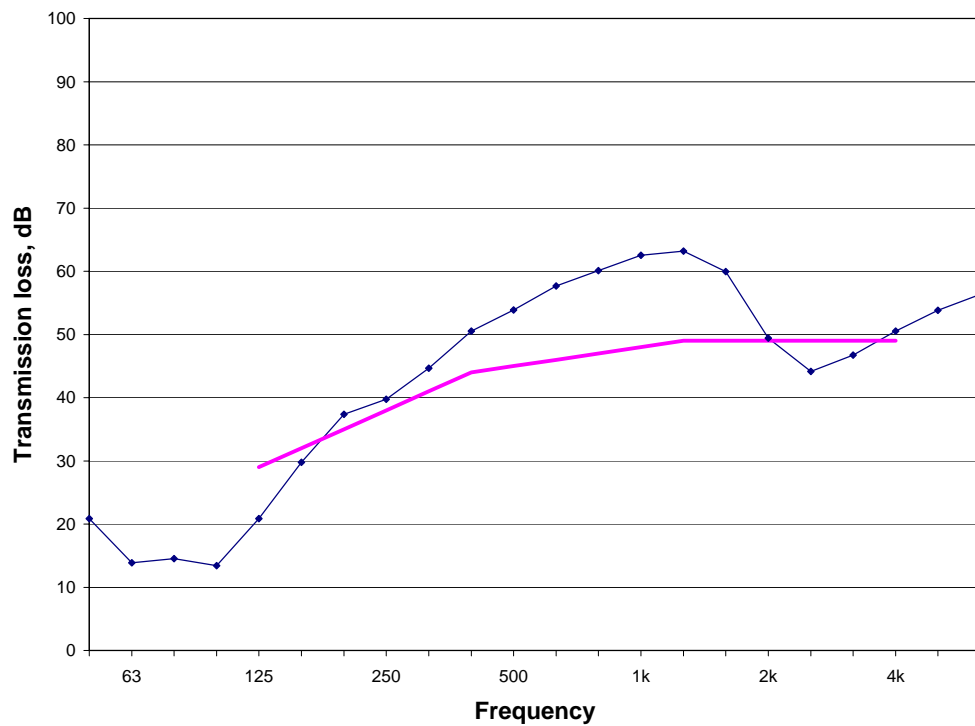


TestID	TL-92-396
STC	45
50 Hz	20.9
63 Hz	13.9
80 Hz	14.5
100 Hz	13.4
125 Hz	20.9
160 Hz	29.8
200 Hz	37.4
250 Hz	39.7
315 Hz	44.6
400 Hz	50.5
500 Hz	53.9
630 Hz	57.7
800 Hz	60.1
1000 Hz	62.6
1250 Hz	63.2
1600 Hz	60.0
2000 Hz	49.4
2500 Hz	44.1
3150 Hz	46.7
4000 Hz	50.5
5000 Hz	53.8
6300 Hz	56.4

TL-92-396

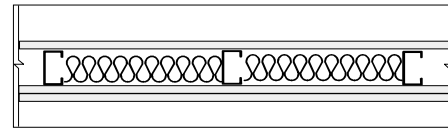
	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	CX	steel	M2	CX
thickness mm	16	90	40	16
gauge		25		
spacing mm		610		
surface density kg/m <sup>2</sup>	10.9		1.5	10.9
linear density kg/m		0.6		
total weight kg	81.3	12.6	11.0	81.2
fastener spacing - edge mm	305			305
fastener spacing - field mm	305			305
fastener top track pattern	a			a
fastener base track pattern	a			a
stud attached to top track		yes		
double header				
orientation	vertical			vertical

TL-92-396  
STC 45



G13\_SS65(406)\_MFB65\_2G13

Element	Description:
1	single layer of 13 mm type X gypsum board
2	65 mm steel studs at 406 mm on centre
3	65 mm of mineral fibre insulation in cavity
4	single layer of 13 mm type X gypsum board
5	single layer of 13 mm type X gypsum board

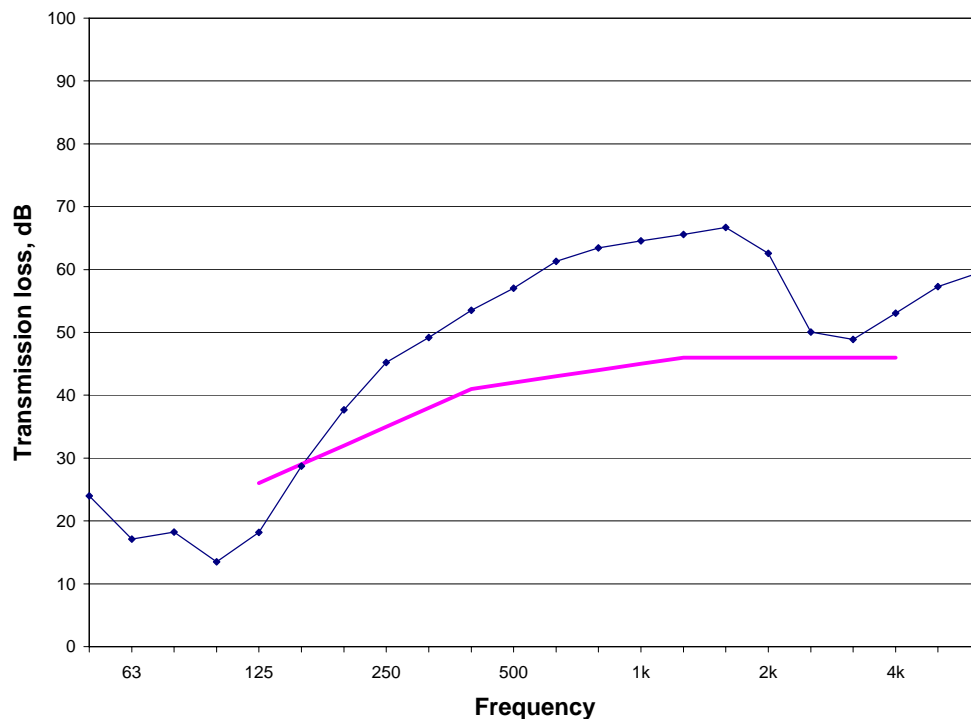


TestID	TL-93-065
STC	42
50 Hz	24.0
63 Hz	17.1
80 Hz	18.2
100 Hz	13.5
125 Hz	18.2
160 Hz	28.7
200 Hz	37.7
250 Hz	45.2
315 Hz	49.2
400 Hz	53.5
500 Hz	57.0
630 Hz	61.3
800 Hz	63.5
1000 Hz	64.5
1250 Hz	65.6
1600 Hz	66.7
2000 Hz	62.6
2500 Hz	50.1
3150 Hz	48.9
4000 Hz	53.1
5000 Hz	57.3
6300 Hz	59.6

TL-93-065

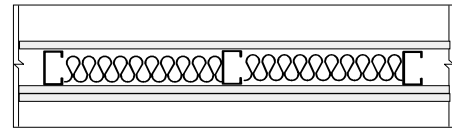
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	gypsum board	gypsum board
material	AX	steel	M1	AX	AX
thickness mm	13	65	65	13	13
gauge		25			
spacing mm		406			
surface density kg/m <sup>2</sup>	10.0		2.3	9.9	9.9
linear density kg/m		0.5			
total weight kg	74.1	13.0	17.4	73.7	73.9
fastener spacing - edge mm	305			305	305
fastener spacing - field mm	305			610	305
fastener top track pattern	c			c	c
fastener base track pattern	c			c	c
stud attached to top track		yes			
double header					
orientation	vertical			vertical	vertical

TL-93-065  
STC 42



G13\_SS65(406)\_MFB65\_2G13

Element	Description:
1	single layer of 13 mm gypsum board
2	65 mm steel studs at 406 mm on centre
3	65 mm of mineral fibre insulation in cavity
4	single layer of 13 mm gypsum board
5	single layer of 13 mm gypsum board

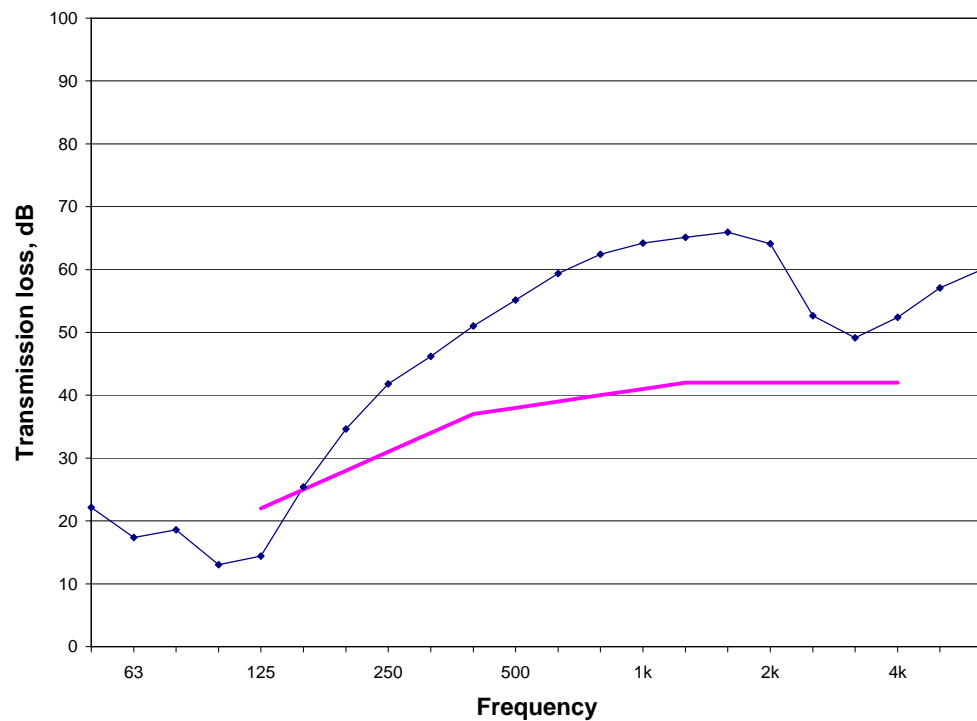


TestID	TL-93-071
STC	38
50 Hz	22.1
63 Hz	17.3
80 Hz	18.6
100 Hz	13.0
125 Hz	14.4
160 Hz	25.4
200 Hz	34.6
250 Hz	41.8
315 Hz	46.2
400 Hz	51.0
500 Hz	55.1
630 Hz	59.4
800 Hz	62.4
1000 Hz	64.2
1250 Hz	65.1
1600 Hz	65.9
2000 Hz	64.1
2500 Hz	52.6
3150 Hz	49.1
4000 Hz	52.4
5000 Hz	57.1
6300 Hz	60.0

TL-93-071

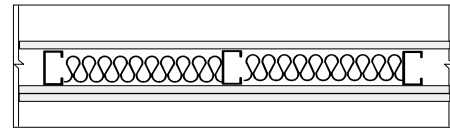
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	gypsum board	gypsum board
material	B	steel	M1	B	B
thickness mm	13	65	65	13	13
gauge		25			
spacing mm		406			
surface density kg/m <sup>2</sup>	8.2		2.3	8.3	8.3
linear density kg/m		0.5			
total weight kg	60.8	13.0	17.4	61.4	61.4
fastener spacing - edge mm	305			305	305
fastener spacing - field mm	305			610	305
fastener top track pattern	c			c	c
fastener base track pattern	c			c	c
stud attached to top track		yes			
double header					
orientation	vertical			vertical	vertical

TL-93-071  
STC 38



G13\_SS65(610)\_GFB65\_2G13

Element	Description:
1	single layer of 13 mm type X gypsum board
2	65 mm steel studs at 610 mm on centre
3	65 mm of glass fibre insulation in cavity
4	single layer of 13 mm type X gypsum board
5	single layer of 13 mm type X gypsum board

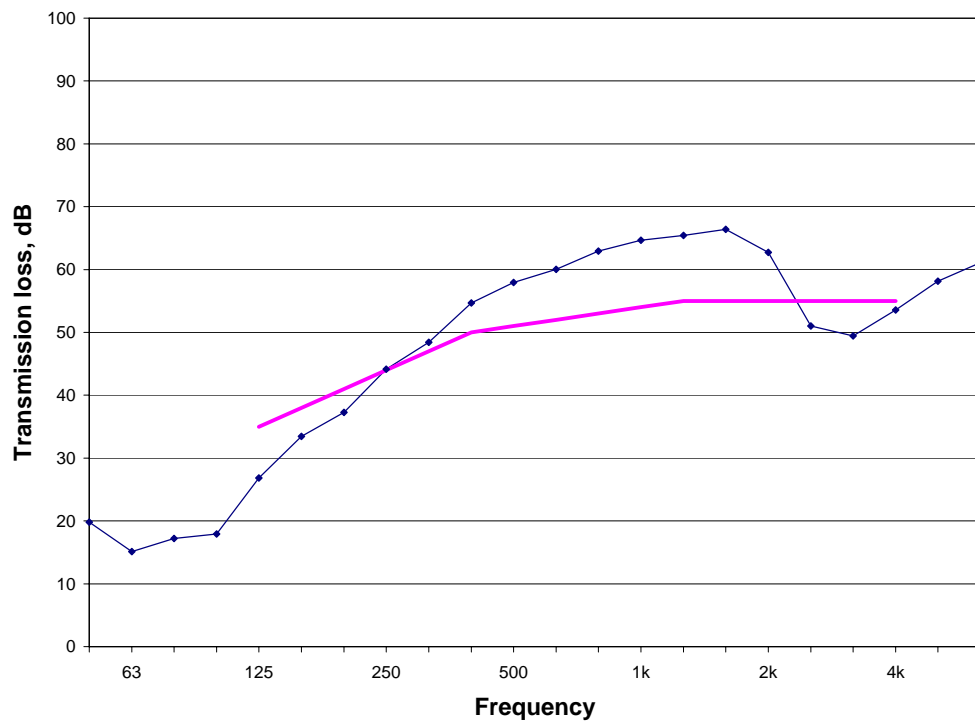


TestID	TL-93-039
STC	51
50 Hz	19.8
63 Hz	15.1
80 Hz	17.2
100 Hz	17.9
125 Hz	26.8
160 Hz	33.5
200 Hz	37.3
250 Hz	44.1
315 Hz	48.4
400 Hz	54.7
500 Hz	57.9
630 Hz	60.0
800 Hz	63.0
1000 Hz	64.7
1250 Hz	65.4
1600 Hz	66.4
2000 Hz	62.7
2500 Hz	51.0
3150 Hz	49.5
4000 Hz	53.6
5000 Hz	58.1
6300 Hz	61.1

TL-93-039

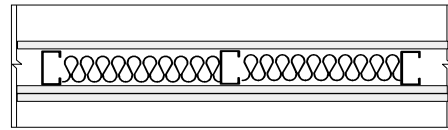
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	gypsum board	gypsum board
material	AX	steel	G1	AX	AX
thickness mm	13	65	65	13	13
gauge		25			
spacing mm		610			
surface density kg/m <sup>2</sup>	10.0		0.8	10.1	10.0
linear density kg/m		0.5			
total weight kg	74.3	9.8	5.9	75.2	74.4
fastener spacing - edge mm	305			305	305
fastener spacing - field mm	305			610	305
fastener top track pattern	c			c	c
fastener base track pattern	c			c	c
stud attached to top track		yes			
double header					
orientation	vertical			vertical	vertical

TL-93-039  
STC 51



G13\_SS65(610)\_GFB65\_2G13

Element	Description:
1	single layer of 13 mm gypsum board
2	65 mm steel studs at 610 mm on centre
3	65 mm of glass fibre insulation in cavity
4	single layer of 13 mm gypsum board
5	single layer of 13 mm gypsum board

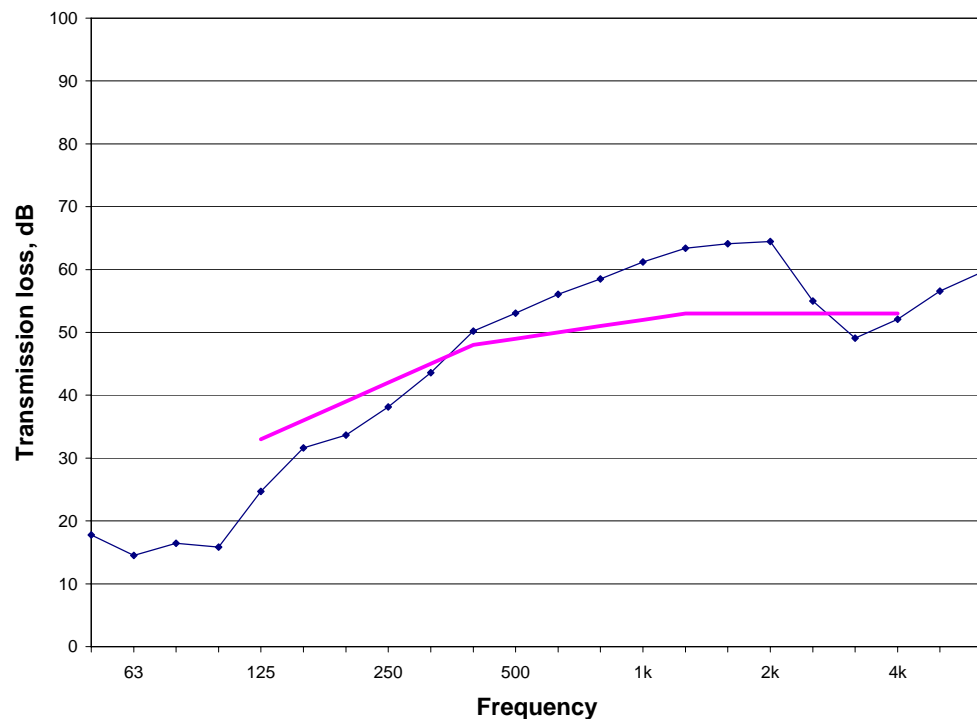


TestID	TL-93-045
STC	49
50 Hz	17.8
63 Hz	14.5
80 Hz	16.4
100 Hz	15.8
125 Hz	24.7
160 Hz	31.6
200 Hz	33.7
250 Hz	38.1
315 Hz	43.6
400 Hz	50.2
500 Hz	53.0
630 Hz	56.0
800 Hz	58.5
1000 Hz	61.2
1250 Hz	63.4
1600 Hz	64.1
2000 Hz	64.5
2500 Hz	55.0
3150 Hz	49.1
4000 Hz	52.1
5000 Hz	56.6
6300 Hz	59.6

TL-93-045

	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	gypsum board	gypsum board
material	B	steel	G1	B	B
thickness mm	13	65	65	13	13
gauge		25			
spacing mm		610			
surface density kg/m <sup>2</sup>	8.3		0.8	8.3	8.3
linear density kg/m		0.5			
total weight kg	61.7	9.9	5.9	61.3	61.6
fastener spacing - edge mm	305			305	305
fastener spacing - field mm	305			610	305
fastener top track pattern	c			c	c
fastener base track pattern	c			c	c
stud attached to top track		yes			
double header					
orientation	vertical			vertical	vertical

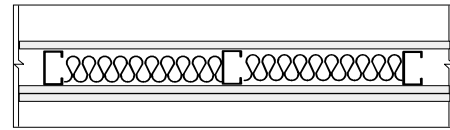
TL-93-045  
STC 49





G13\_SS65(610)\_MFB65\_2G13

Element	Description:
1	single layer of 13 mm type X gypsum board
2	65 mm steel studs at 610 mm on centre
3	65 mm of mineral fibre insulation in cavity
4	single layer of 13 mm type X gypsum board
5	single layer of 13 mm type X gypsum board

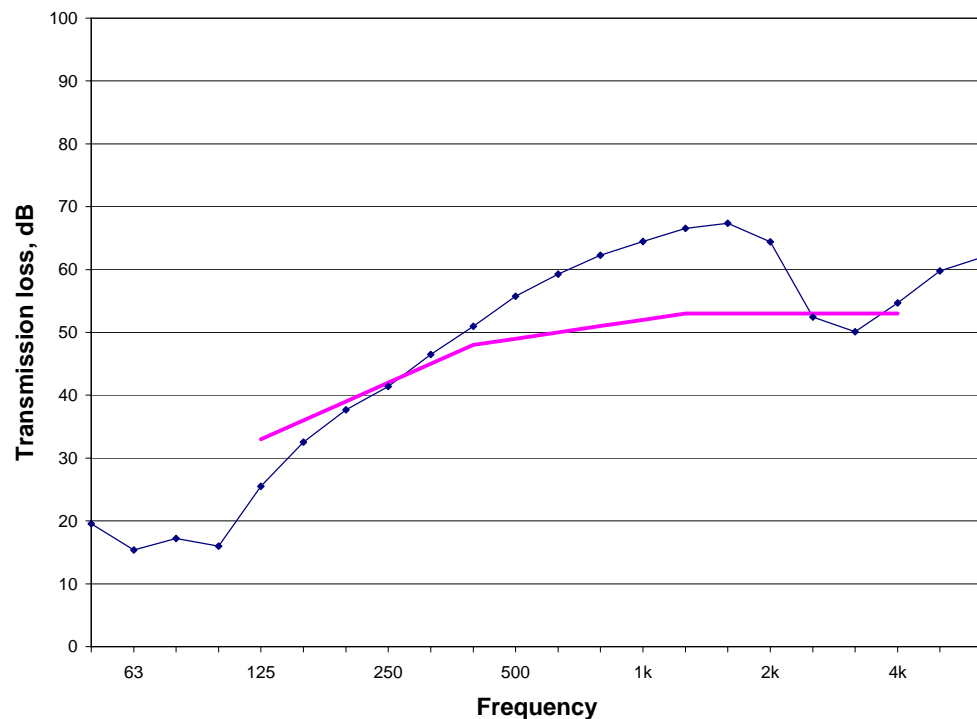


TestID	TL-93-055
STC	49
50 Hz	19.6
63 Hz	15.4
80 Hz	17.2
100 Hz	16.0
125 Hz	25.5
160 Hz	32.5
200 Hz	37.7
250 Hz	41.4
315 Hz	46.5
400 Hz	51.0
500 Hz	55.8
630 Hz	59.3
800 Hz	62.3
1000 Hz	64.5
1250 Hz	66.6
1600 Hz	67.4
2000 Hz	64.4
2500 Hz	52.4
3150 Hz	50.1
4000 Hz	54.7
5000 Hz	59.8
6300 Hz	62.0

TL-93-055

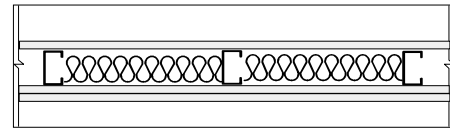
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	gypsum board	gypsum board
material	AX	steel	M1	AX	AX
thickness mm	13	65	65	13	13
gauge		25			
spacing mm		610			
surface density kg/m <sup>2</sup>	10.0		2.2	10.0	10.1
linear density kg/m		0.5			
total weight kg	74.1	9.9	16.6	74.0	74.9
fastener spacing - edge mm	305			305	305
fastener spacing - field mm	305			610	305
fastener top track pattern	c			c	c
fastener base track pattern	c			c	c
stud attached to top track		yes			
double header					
orientation	vertical			vertical	vertical

TL-93-055  
STC 49



G13\_SS65(610)\_MFB65\_2G13

Element	Description:
1	single layer of 13 mm type X gypsum board
2	65 mm steel studs at 610 mm on centre
3	65 mm of mineral fibre insulation in cavity
4	single layer of 13 mm type X gypsum board
5	single layer of 13 mm gypsum board

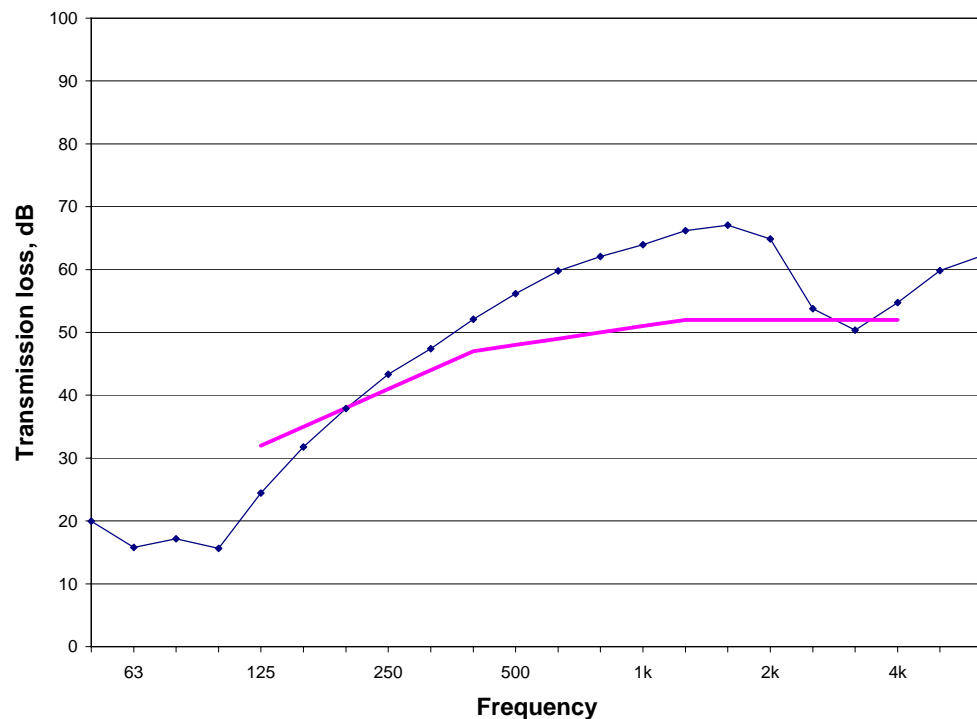


TestID	TL-93-048
STC	48
50 Hz	20.0
63 Hz	15.8
80 Hz	17.2
100 Hz	15.7
125 Hz	24.4
160 Hz	31.8
200 Hz	37.9
250 Hz	43.3
315 Hz	47.4
400 Hz	52.1
500 Hz	56.2
630 Hz	59.8
800 Hz	62.0
1000 Hz	64.0
1250 Hz	66.2
1600 Hz	67.1
2000 Hz	64.9
2500 Hz	53.8
3150 Hz	50.4
4000 Hz	54.8
5000 Hz	59.8
6300 Hz	62.2

TL-93-048

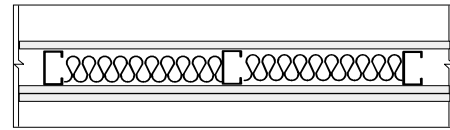
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	gypsum board	gypsum board
material	AX	steel	M1	AX	B
thickness mm	13	65	65	13	13
gauge		25			
spacing mm		610			
surface density kg/m <sup>2</sup>	10.0		2.2	10.0	8.3
linear density kg/m		0.5			
total weight kg	74.1	9.9	16.6	74.0	61.5
fastener spacing - edge mm	305			305	305
fastener spacing - field mm	305			610	305
fastener top track pattern	c			c	a
fastener base track pattern	c			c	a
stud attached to top track		yes			
double header					
orientation	vertical			vertical	horizontal

TL-93-048  
STC 48



G13\_SS90(406)\_GFB90\_2G13

Element	Description:
1	single layer of 13 mm type X gypsum board
2	90 mm steel studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	single layer of 13 mm type X gypsum board
5	single layer of 13 mm type X gypsum board

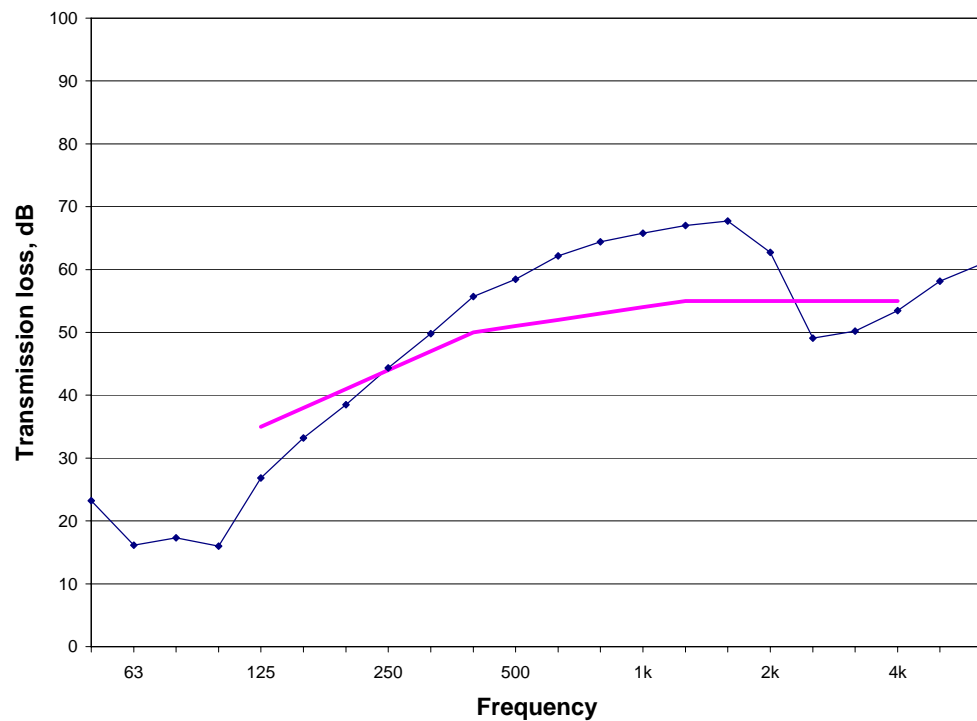


TestID	TL-92-423
STC	51
50 Hz	23.2
63 Hz	16.2
80 Hz	17.3
100 Hz	16.0
125 Hz	26.8
160 Hz	33.2
200 Hz	38.5
250 Hz	44.4
315 Hz	49.8
400 Hz	55.7
500 Hz	58.5
630 Hz	62.2
800 Hz	64.4
1000 Hz	65.8
1250 Hz	67.0
1600 Hz	67.7
2000 Hz	62.7
2500 Hz	49.1
3150 Hz	50.2
4000 Hz	53.5
5000 Hz	58.2
6300 Hz	60.9

TL-92-423

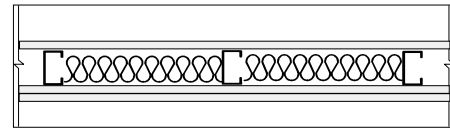
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	gypsum board	gypsum board
material	AX	steel	G1	AX	AX
thickness mm	13	90	90	13	13
gauge		25			
spacing mm		406			
surface density kg/m <sup>2</sup>	10.0		1.1	10.0	10.0
linear density kg/m		0.6			
total weight kg	74.3	15.8	8.2	74.2	74.0
fastener spacing - edge mm	305			305	305
fastener spacing - field mm	305			610	305
fastener top track pattern	c			c	c
fastener base track pattern	c			c	c
stud attached to top track		yes			
double header					
orientation	vertical			vertical	vertical

TL-92-423  
STC 51



G13\_SS90(406)\_GFB90\_2G13

Element	Description:
1	single layer of 13 mm type X gypsum board
2	90 mm steel studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	single layer of 13 mm type X gypsum board
5	single layer of 13 mm type X gypsum board

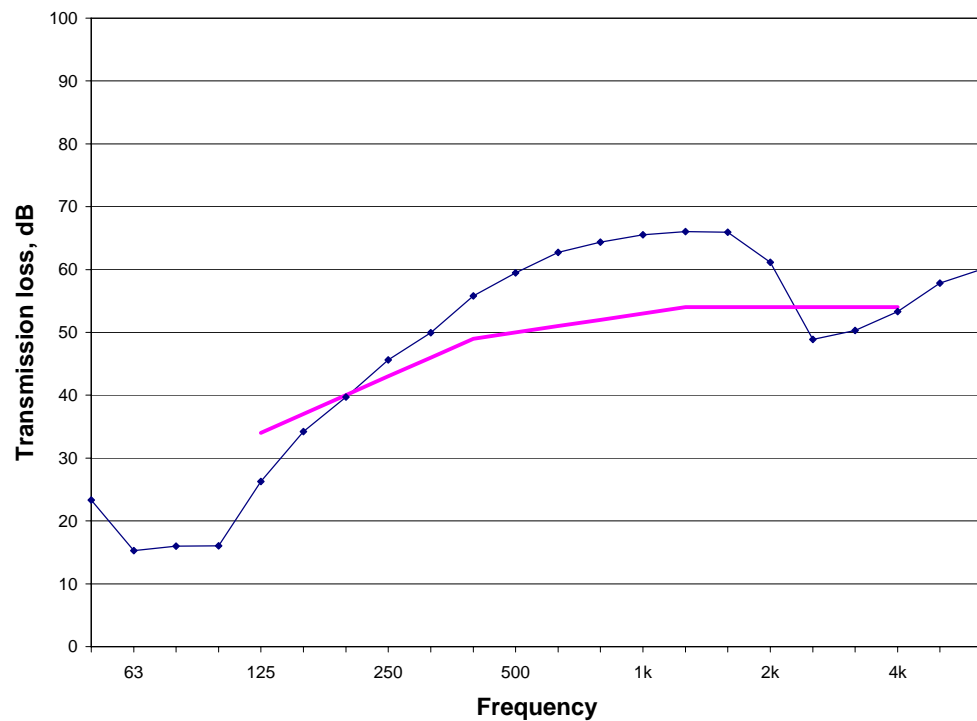


TestID	TL-92-426
STC	50
50 Hz	23.3
63 Hz	15.3
80 Hz	16.0
100 Hz	16.0
125 Hz	26.3
160 Hz	34.2
200 Hz	39.7
250 Hz	45.6
315 Hz	50.0
400 Hz	55.8
500 Hz	59.5
630 Hz	62.7
800 Hz	64.4
1000 Hz	65.5
1250 Hz	66.0
1600 Hz	65.9
2000 Hz	61.2
2500 Hz	48.9
3150 Hz	50.3
4000 Hz	53.3
5000 Hz	57.8
6300 Hz	60.1

TL-92-426

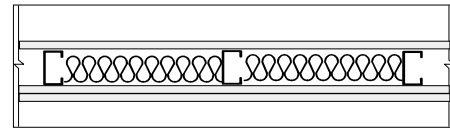
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	gypsum board	gypsum board
material	BX	steel	G1	BX	BX
thickness mm	13	90	90	13	13
gauge		25			
spacing mm		406			
surface density kg/m <sup>2</sup>	9.7		1.1	9.8	9.7
linear density kg/m		0.6			
total weight kg	72.3	16.6	8.2	72.6	71.9
fastener spacing - edge mm	305			305	305
fastener spacing - field mm	305			610	305
fastener top track pattern	c			c	c
fastener base track pattern	c			c	c
stud attached to top track		yes			
double header					
orientation	vertical			vertical	vertical

TL-92-426  
STC 50



G13\_SS90(406)\_GFB90\_2G13

Element	Description:
1	single layer of 13 mm type X gypsum board
2	90 mm steel studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	single layer of 13 mm type X gypsum board
5	single layer of 13 mm type X gypsum board

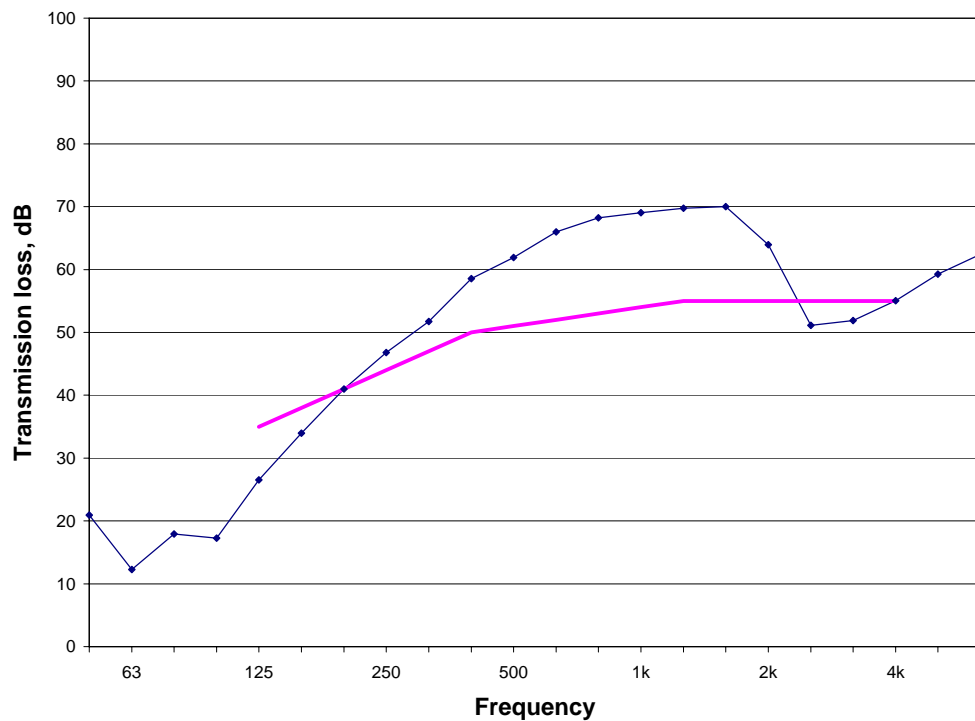


TestID	TL-93-345
STC	51
50 Hz	20.9
63 Hz	12.3
80 Hz	17.9
100 Hz	17.3
125 Hz	26.5
160 Hz	34.0
200 Hz	41.0
250 Hz	46.8
315 Hz	51.7
400 Hz	58.6
500 Hz	61.9
630 Hz	66.0
800 Hz	68.2
1000 Hz	69.0
1250 Hz	69.8
1600 Hz	70.0
2000 Hz	63.9
2500 Hz	51.1
3150 Hz	51.9
4000 Hz	55.1
5000 Hz	59.3
6300 Hz	62.4

TL-93-345

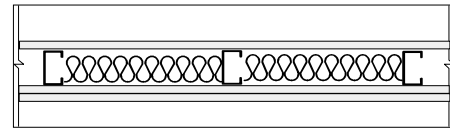
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	gypsum board	gypsum board
material	AX	steel	G1	AX	AX
thickness mm	13	90	90	13	13
gauge		25			
spacing mm		406			
surface density kg/m <sup>2</sup>	10.2		1.1	10.2	10.3
linear density kg/m		0.6			
total weight kg	75.6	16.2	8.0	76.1	76.8
fastener spacing - edge mm	305			305	305
fastener spacing - field mm	305			610	305
fastener top track pattern	d			d	d
fastener base track pattern	a			a	a
stud attached to top track					
double header					
orientation	vertical			vertical	vertical

TL-93-345  
STC 51



G13\_SS90(406)\_GFB90\_2G13

Element	Description:
1	single layer of 13 mm gypsum board
2	90 mm steel studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	single layer of 13 mm gypsum board
5	single layer of 13 mm gypsum board

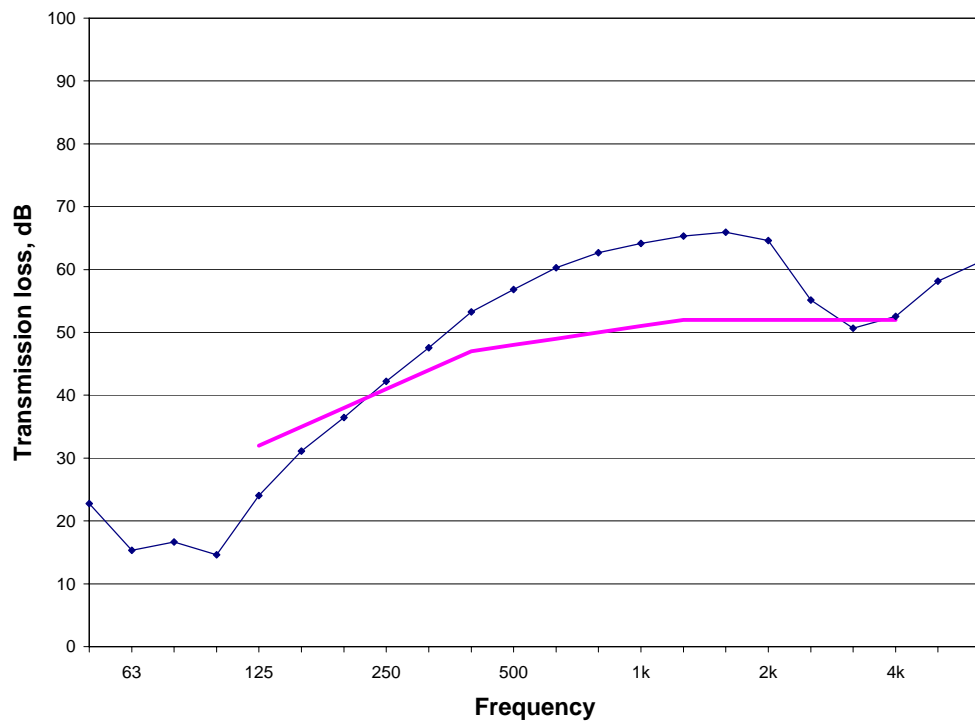


TestID	TL-92-429
STC	48
50 Hz	22.8
63 Hz	15.3
80 Hz	16.7
100 Hz	14.6
125 Hz	24.0
160 Hz	31.1
200 Hz	36.4
250 Hz	42.2
315 Hz	47.5
400 Hz	53.3
500 Hz	56.8
630 Hz	60.3
800 Hz	62.7
1000 Hz	64.2
1250 Hz	65.3
1600 Hz	66.0
2000 Hz	64.6
2500 Hz	55.1
3150 Hz	50.7
4000 Hz	52.6
5000 Hz	58.1
6300 Hz	61.2

TL-92-429

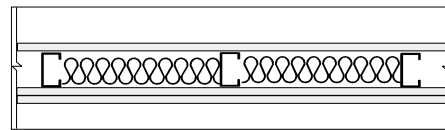
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	gypsum board	gypsum board
material	B	steel	G1	B	B
thickness mm	13	90	90	13	13
gauge		25			
spacing mm		406			
surface density kg/m <sup>2</sup>	8.2		1.1	8.2	8.3
linear density kg/m		0.6			
total weight kg	60.9	16.6	8.2	61.2	61.4
fastener spacing - edge mm	305			305	305
fastener spacing - field mm	305			610	305
fastener top track pattern	c			c	c
fastener base track pattern	c			c	c
stud attached to top track		yes			
double header					
orientation	vertical			vertical	vertical

TL-92-429  
STC 48



G13\_SS90(406)\_GFB90\_2G13

Element	Description:
1	single layer of 13 mm gypsum board
2	90 mm steel studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	single layer of 13 mm gypsum board
5	single layer of 13 mm gypsum board

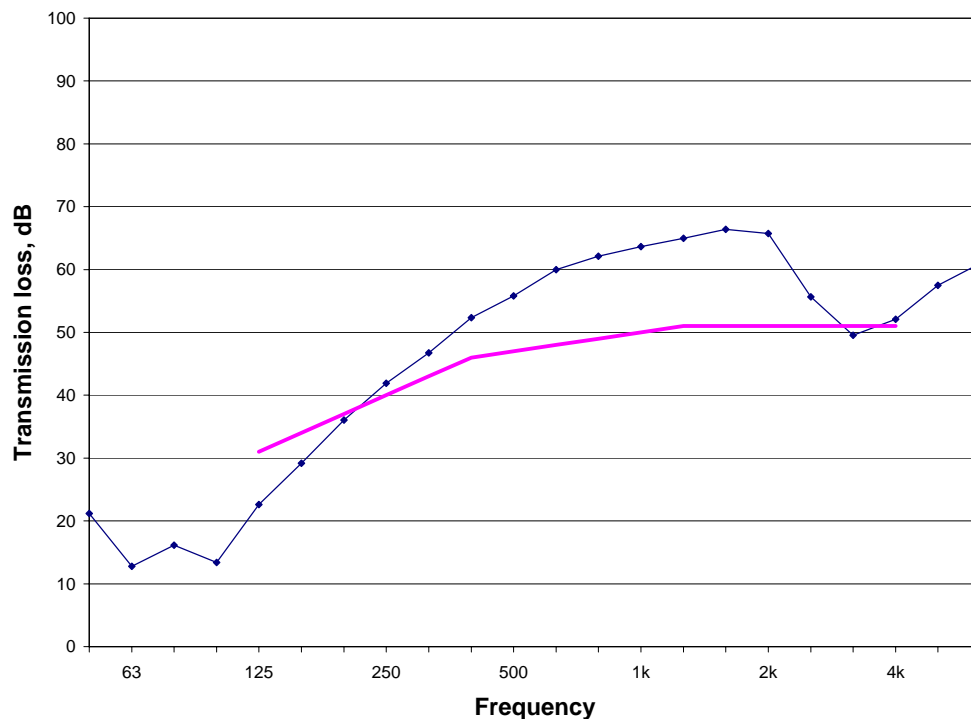


TestID	TL-93-348
STC	47
50 Hz	21.2
63 Hz	12.8
80 Hz	16.2
100 Hz	13.4
125 Hz	22.6
160 Hz	29.2
200 Hz	36.1
250 Hz	41.9
315 Hz	46.7
400 Hz	52.4
500 Hz	55.8
630 Hz	60.0
800 Hz	62.1
1000 Hz	63.7
1250 Hz	65.0
1600 Hz	66.4
2000 Hz	65.7
2500 Hz	55.6
3150 Hz	49.6
4000 Hz	52.1
5000 Hz	57.5
6300 Hz	61.0

TL-93-348

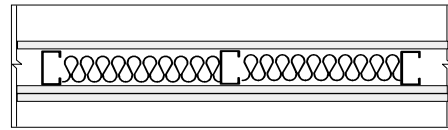
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	gypsum board	gypsum board
material	B	steel	G1	B	B
thickness mm	13	90	90	13	13
gauge		25			
spacing mm		406			
surface density kg/m <sup>2</sup>	8.3		1.1	8.2	8.3
linear density kg/m		0.6			
total weight kg	61.7	16.2	8.0	61.2	61.3
fastener spacing - edge mm	305			305	305
fastener spacing - field mm	305			610	305
fastener top track pattern				d	d
fastener base track pattern	a			a	a
stud attached to top track					
double header					
orientation	vertical			vertical	vertical

TL-93-348  
STC 47



G13\_SS90(406)\_GFB90\_2G13

Element	Description:
1	single layer of 13 mm gypsum board
2	90 mm steel studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	single layer of 13 mm gypsum board
5	single layer of 13 mm gypsum board

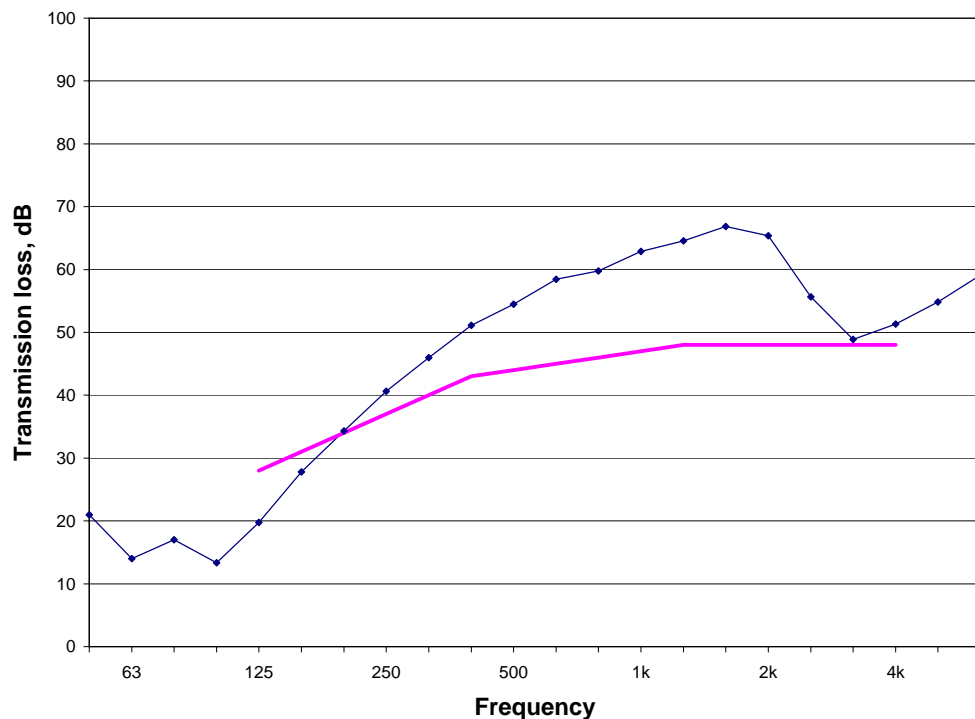


TestID	TL-93-364
STC	44
50 Hz	21.0
63 Hz	14.0
80 Hz	17.0
100 Hz	13.4
125 Hz	19.8
160 Hz	27.8
200 Hz	34.3
250 Hz	40.6
315 Hz	46.0
400 Hz	51.1
500 Hz	54.5
630 Hz	58.5
800 Hz	59.8
1000 Hz	62.9
1250 Hz	64.6
1600 Hz	66.8
2000 Hz	65.4
2500 Hz	55.7
3150 Hz	48.9
4000 Hz	51.3
5000 Hz	54.8
6300 Hz	59.1

TL-93-364

	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	gypsum board	gypsum board
material	BL	steel	G1	BL	BL
thickness mm	13	90	90	13	13
gauge		25			
spacing mm		406			
surface density kg/m <sup>2</sup>	7.3		1.0	7.3	7.3
linear density kg/m		0.5			
total weight kg	54.3	14.1	7.8	53.9	54.3
fastener spacing - edge mm	305			305	305
fastener spacing - field mm	305			610	305
fastener top track pattern	d			d	d
fastener base track pattern	a			a	a
stud attached to top track					
double header					
orientation	vertical			vertical	vertical

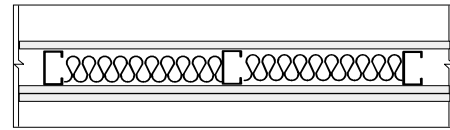
TL-93-364  
STC 44





G13\_SS90(406)\_GFB90\_2G13

Element	Description:
1	single layer of 13 mm gypsum board
2	90 mm steel studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	single layer of 13 mm gypsum board
5	single layer of 13 mm gypsum board

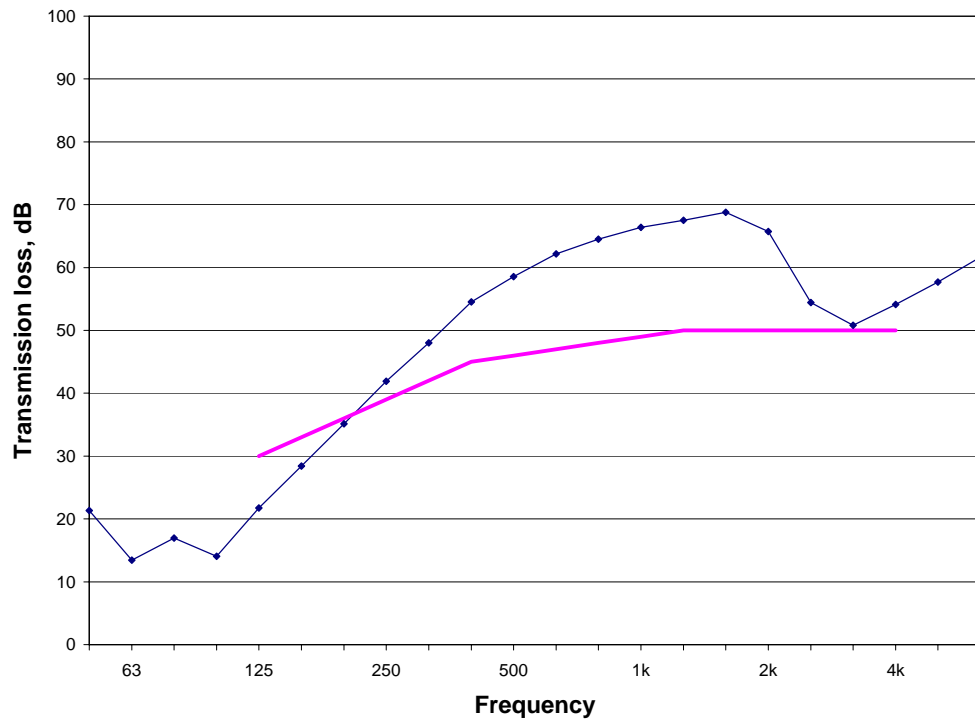


TestID	TL-93-366
STC	46
50 Hz	21.3
63 Hz	13.4
80 Hz	17.0
100 Hz	14.1
125 Hz	21.7
160 Hz	28.4
200 Hz	35.2
250 Hz	41.9
315 Hz	48.0
400 Hz	54.5
500 Hz	58.6
630 Hz	62.2
800 Hz	64.5
1000 Hz	66.4
1250 Hz	67.5
1600 Hz	68.8
2000 Hz	65.7
2500 Hz	54.4
3150 Hz	50.8
4000 Hz	54.1
5000 Hz	57.7
6300 Hz	61.7

TL-93-366

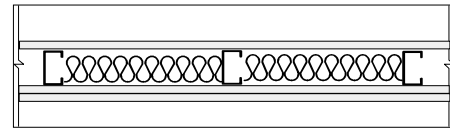
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	gypsum board	gypsum board
material	A	steel	G1	A	A
thickness mm	13	90	90	13	13
gauge		25			
spacing mm		406			
surface density kg/m <sup>2</sup>	8.0		1.0	7.9	7.9
linear density kg/m		0.5			
total weight kg	59.2	14.1	7.8	58.8	58.7
fastener spacing - edge mm	305			305	305
fastener spacing - field mm	305			610	305
fastener top track pattern	d			d	d
fastener base track pattern	a			a	a
stud attached to top track					
double header					
orientation	vertical			vertical	vertical

TL-93-366  
STC 46



G13\_SS90(610)\_CFL90\_2G13

Element	Description:
1	single layer of 13 mm type X gypsum board
2	90 mm steel studs at 610 mm on centre
3	90 mm of blown cellulose fibre insulation in cavity
4	single layer of 13 mm type X gypsum board
5	single layer of 13 mm type X gypsum board

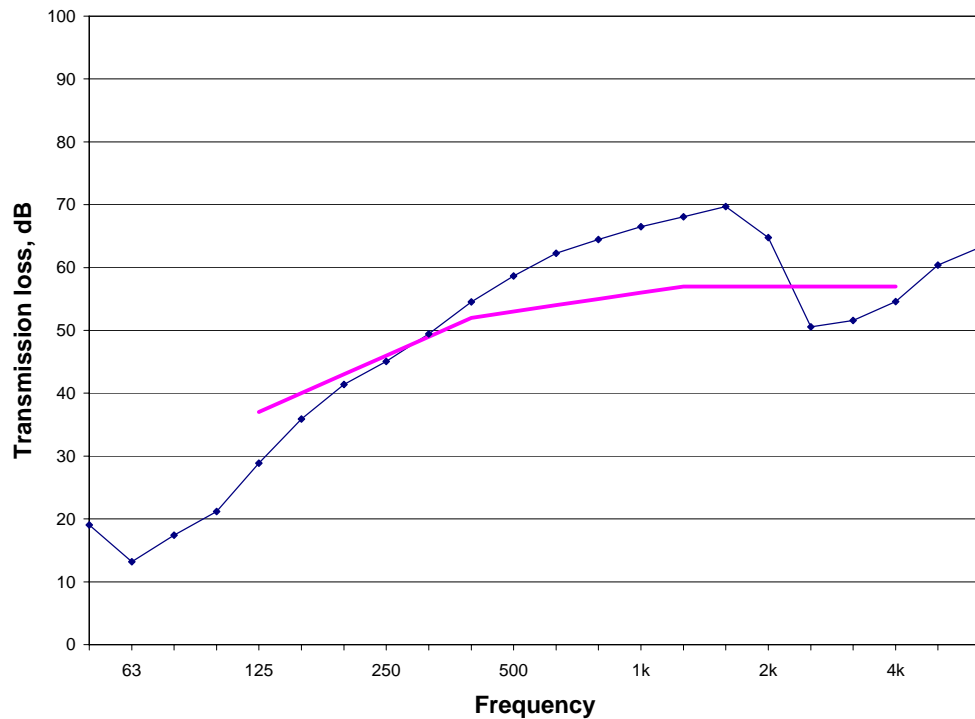


TestID	TL-93-027
STC	53
50 Hz	19.0
63 Hz	13.2
80 Hz	17.4
100 Hz	21.2
125 Hz	28.9
160 Hz	35.9
200 Hz	41.4
250 Hz	45.1
315 Hz	49.5
400 Hz	54.5
500 Hz	58.6
630 Hz	62.3
800 Hz	64.5
1000 Hz	66.5
1250 Hz	68.1
1600 Hz	69.7
2000 Hz	64.8
2500 Hz	50.6
3150 Hz	51.6
4000 Hz	54.6
5000 Hz	60.4
6300 Hz	63.3

TL-93-027

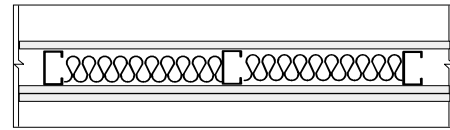
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	gypsum board	gypsum board
material	AX	steel	C2	AX	AX
thickness mm	13	90	90	13	13
gauge		25			
spacing mm		610			
surface density kg/m <sup>2</sup>	10.0		3.4	9.9	10.0
linear density kg/m		0.5			
total weight kg	74.1	11.4	25.6	73.9	74.3
fastener spacing - edge mm	305			305	305
fastener spacing - field mm	305			610	305
fastener top track pattern	c			c	c
fastener base track pattern	c			c	c
stud attached to top track		yes			
double header					
orientation	vertical			vertical	vertical

TL-93-027  
STC 53



G13\_SS90(610)\_GFB90\_2G13

Element	Description:
1	single layer of 13 mm type X gypsum board
2	90 mm steel studs at 610 mm on centre
3	90 mm of glass fibre insulation in cavity
4	single layer of 13 mm type X gypsum board
5	single layer of 13 mm type X gypsum board

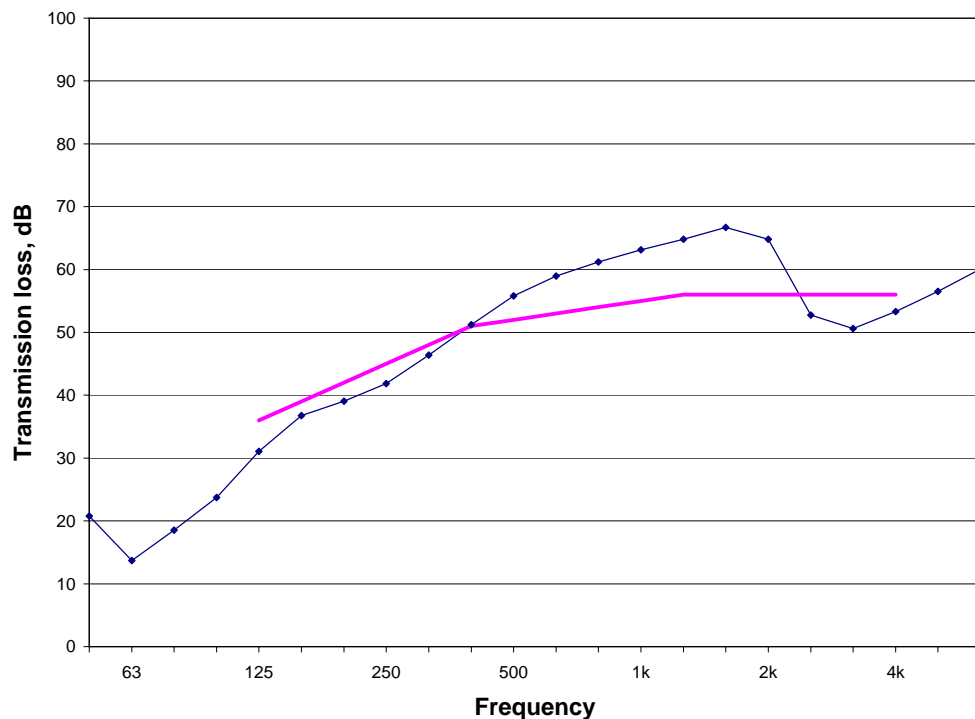


TestID	TL-92-411
STC	52
50 Hz	20.8
63 Hz	13.7
80 Hz	18.5
100 Hz	23.7
125 Hz	31.1
160 Hz	36.8
200 Hz	39.1
250 Hz	41.9
315 Hz	46.4
400 Hz	51.2
500 Hz	55.8
630 Hz	59.0
800 Hz	61.2
1000 Hz	63.1
1250 Hz	64.8
1600 Hz	66.7
2000 Hz	64.8
2500 Hz	52.8
3150 Hz	50.6
4000 Hz	53.3
5000 Hz	56.5
6300 Hz	60.1

TL-92-411

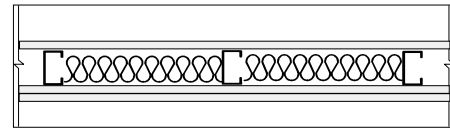
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	gypsum board	gypsum board
material	AX	steel	G1	AX	AX
thickness mm	13	90	90	13	13
gauge		25			
spacing mm		610			
surface density kg/m <sup>2</sup>	9.9		1.2	9.9	9.9
linear density kg/m		0.6			
total weight kg	73.7	13.0	8.7	73.7	73.5
fastener spacing - edge mm	305			305	305
fastener spacing - field mm	305			610	305
fastener top track pattern	c			c	c
fastener base track pattern	c			c	c
stud attached to top track		yes			
double header					
orientation	vertical			vertical	vertical

TL-92-411  
STC 52



G13\_SS90(610)\_GFB90\_2G13

Element	Description:
1	single layer of 13 mm gypsum board
2	90 mm steel studs at 610 mm on centre
3	90 mm of glass fibre insulation in cavity
4	single layer of 13 mm gypsum board
5	single layer of 13 mm gypsum board

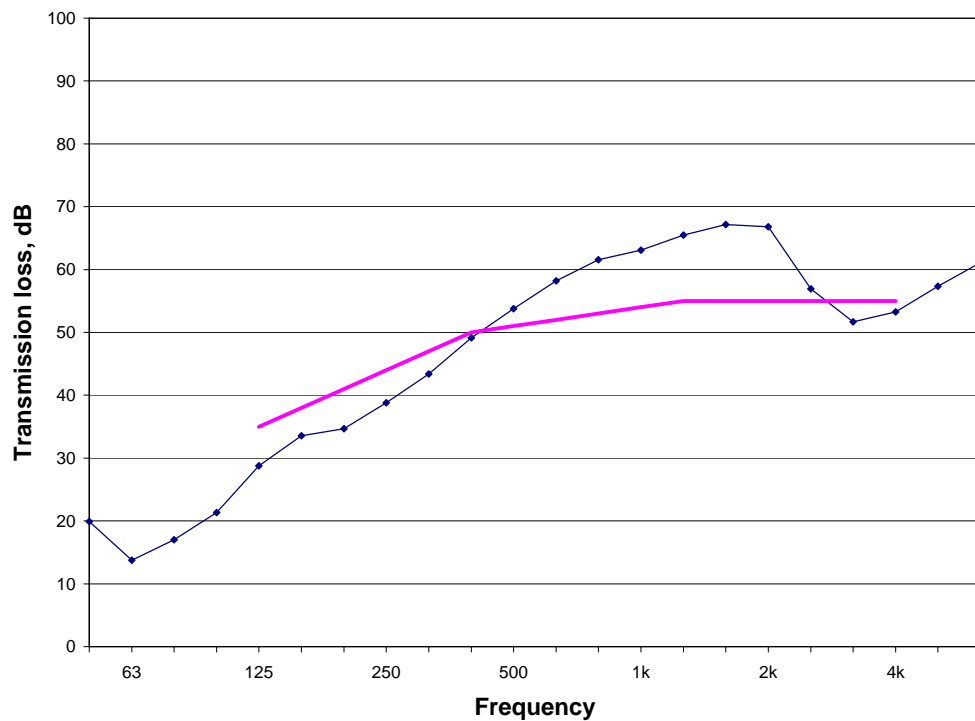


TestID	TL-92-415
STC	51
50 Hz	19.9
63 Hz	13.8
80 Hz	17.0
100 Hz	21.3
125 Hz	28.8
160 Hz	33.6
200 Hz	34.7
250 Hz	38.8
315 Hz	43.4
400 Hz	49.1
500 Hz	53.8
630 Hz	58.2
800 Hz	61.5
1000 Hz	63.1
1250 Hz	65.5
1600 Hz	67.1
2000 Hz	66.8
2500 Hz	56.9
3150 Hz	51.7
4000 Hz	53.2
5000 Hz	57.3
6300 Hz	61.1

TL-92-415

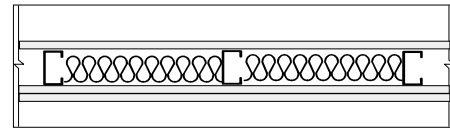
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	gypsum board	gypsum board
material	B	steel	G1	B	B
thickness mm	13	90	90	13	13
gauge		25			
spacing mm		610			
surface density kg/m <sup>2</sup>	8.3		1.2	8.2	8.2
linear density kg/m		0.6			
total weight kg	61.4	13.0	8.7	61.1	60.8
fastener spacing - edge mm	305			305	305
fastener spacing - field mm	305			610	305
fastener top track pattern	c			c	c
fastener base track pattern	c			c	c
stud attached to top track		yes			
double header					
orientation	vertical			vertical	vertical

TL-92-415  
STC 51



G16\_SS65(406)\_MFB65\_2G16

Element	Description:
1	single layer of 16 mm type X gypsum board
2	65 mm steel studs at 406 mm on centre
3	65 mm of mineral fibre insulation in cavity
4	single layer of 16 mm type X gypsum board
5	single layer of 16 mm type X gypsum board

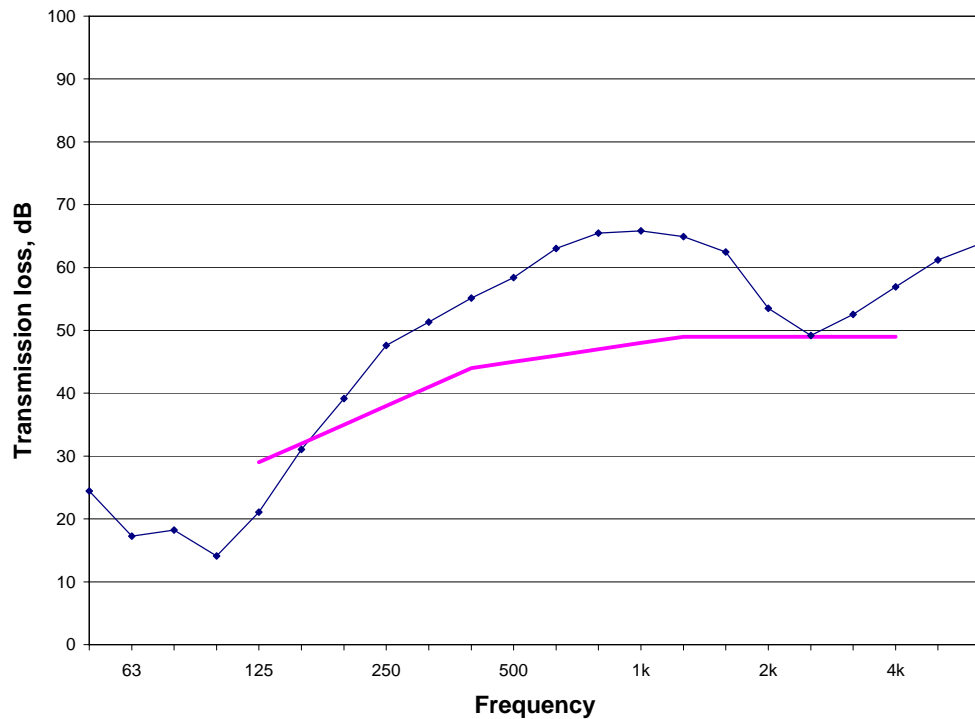


TestID	TL-93-062
STC	45
50 Hz	24.4
63 Hz	17.2
80 Hz	18.2
100 Hz	14.1
125 Hz	21.1
160 Hz	31.1
200 Hz	39.1
250 Hz	47.6
315 Hz	51.3
400 Hz	55.1
500 Hz	58.4
630 Hz	63.0
800 Hz	65.5
1000 Hz	65.8
1250 Hz	64.9
1600 Hz	62.5
2000 Hz	53.5
2500 Hz	49.2
3150 Hz	52.6
4000 Hz	56.9
5000 Hz	61.2
6300 Hz	63.8

TL-93-062

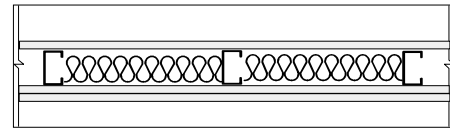
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	gypsum board	gypsum board
material	CX	steel	M1	CX	CX
thickness mm	16	65	65	16	16
gauge		25			
spacing mm		406			
surface density kg/m <sup>2</sup>	11.0		2.3	10.9	10.9
linear density kg/m		0.5			
total weight kg	81.5	13.4	17.4	81.1	81.2
fastener spacing - edge mm	305			305	305
fastener spacing - field mm	305			610	305
fastener top track pattern	c			c	c
fastener base track pattern	c			c	c
stud attached to top track		yes			
double header					
orientation	vertical			vertical	vertical

TL-93-062  
STC 45



G16\_SS65(610)\_GFB65\_2G16

Element	Description:
1	single layer of 16 mm type X gypsum board
2	65 mm steel studs at 610 mm on centre
3	65 mm of glass fibre insulation in cavity
4	single layer of 16 mm type X gypsum board
5	single layer of 16 mm type X gypsum board

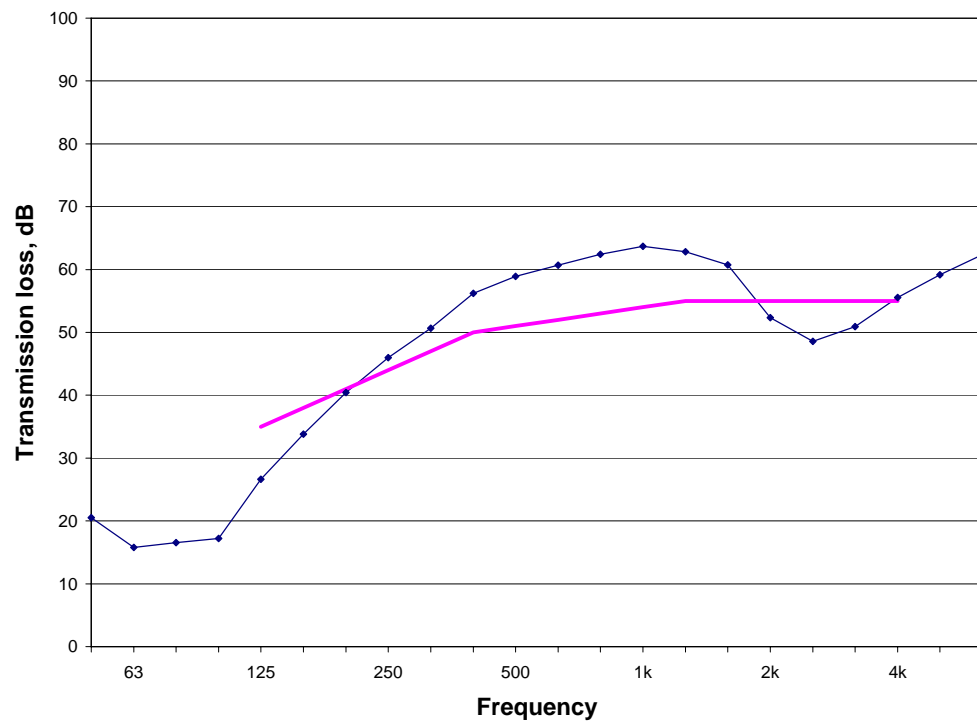


TestID	TL-93-036
STC	51
50 Hz	20.5
63 Hz	15.8
80 Hz	16.5
100 Hz	17.2
125 Hz	26.6
160 Hz	33.8
200 Hz	40.5
250 Hz	46.0
315 Hz	50.7
400 Hz	56.2
500 Hz	58.9
630 Hz	60.7
800 Hz	62.4
1000 Hz	63.7
1250 Hz	62.9
1600 Hz	60.8
2000 Hz	52.4
2500 Hz	48.6
3150 Hz	50.9
4000 Hz	55.5
5000 Hz	59.2
6300 Hz	62.4

TL-93-036

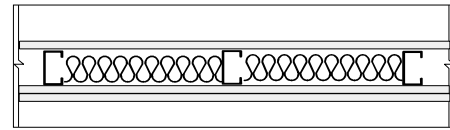
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	gypsum board	gypsum board
material	CX	steel	G1	CX	CX
thickness mm	16	65	65	16	16
gauge		25			
spacing mm		610			
surface density kg/m <sup>2</sup>	11.1		0.8	11.0	10.9
linear density kg/m		0.5			
total weight kg	82.2	9.8	5.9	81.4	81.2
fastener spacing - edge mm	305			305	305
fastener spacing - field mm	305			610	305
fastener top track pattern	c			c	c
fastener base track pattern	c			c	c
stud attached to top track		yes			
double header					
orientation	vertical			vertical	vertical

TL-93-036  
STC 51



G16\_SS65(610)\_GFB65\_G16\_G13

Element	Description:
1	single layer of 16 mm type X gypsum board
2	65 mm steel studs at 610 mm on centre
3	65 mm of glass fibre insulation in cavity
4	single layer of 16 mm type X gypsum board
5	single layer of 13 mm gypsum board

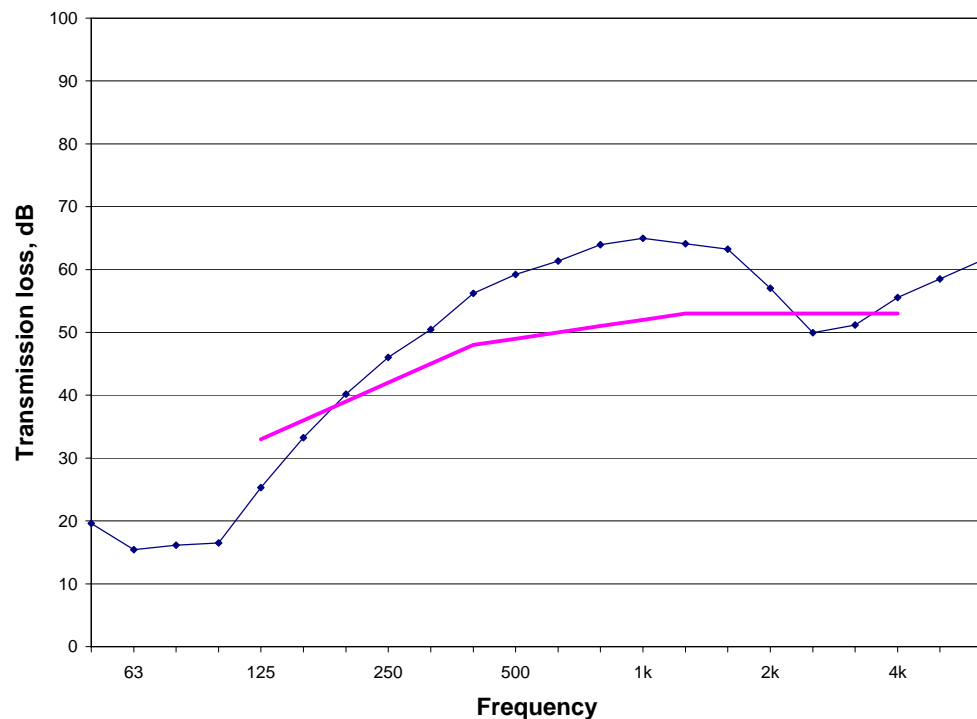


TestID	TL-93-035
STC	49
50 Hz	19.6
63 Hz	15.4
80 Hz	16.1
100 Hz	16.5
125 Hz	25.3
160 Hz	33.3
200 Hz	40.2
250 Hz	46.1
315 Hz	50.5
400 Hz	56.2
500 Hz	59.2
630 Hz	61.4
800 Hz	63.9
1000 Hz	65.0
1250 Hz	64.1
1600 Hz	63.3
2000 Hz	57.0
2500 Hz	49.9
3150 Hz	51.2
4000 Hz	55.6
5000 Hz	58.5
6300 Hz	61.5

TL-93-035

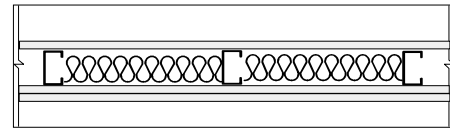
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	gypsum board	gypsum board
material	CX	steel	G1	CX	B
thickness mm	16	65	65	16	13
gauge		25			
spacing mm		610			
surface density kg/m <sup>2</sup>	11.1		0.8	11.0	8.0
linear density kg/m		0.5			
total weight kg	82.2	9.8	5.9	81.4	59.4
fastener spacing - edge mm	305			305	305
fastener spacing - field mm	305			610	305
fastener top track pattern	c			c	c
fastener base track pattern	c			c	c
stud attached to top track		yes			
double header					
orientation	vertical			vertical	vertical

TL-93-035  
STC 49



G16\_SS90(406)\_CFL90\_2G16

Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm steel studs at 406 mm on centre
3	90 mm of blown cellulose fibre insulation in cavity
4	single layer of 16 mm type X gypsum board
5	single layer of 16 mm type X gypsum board

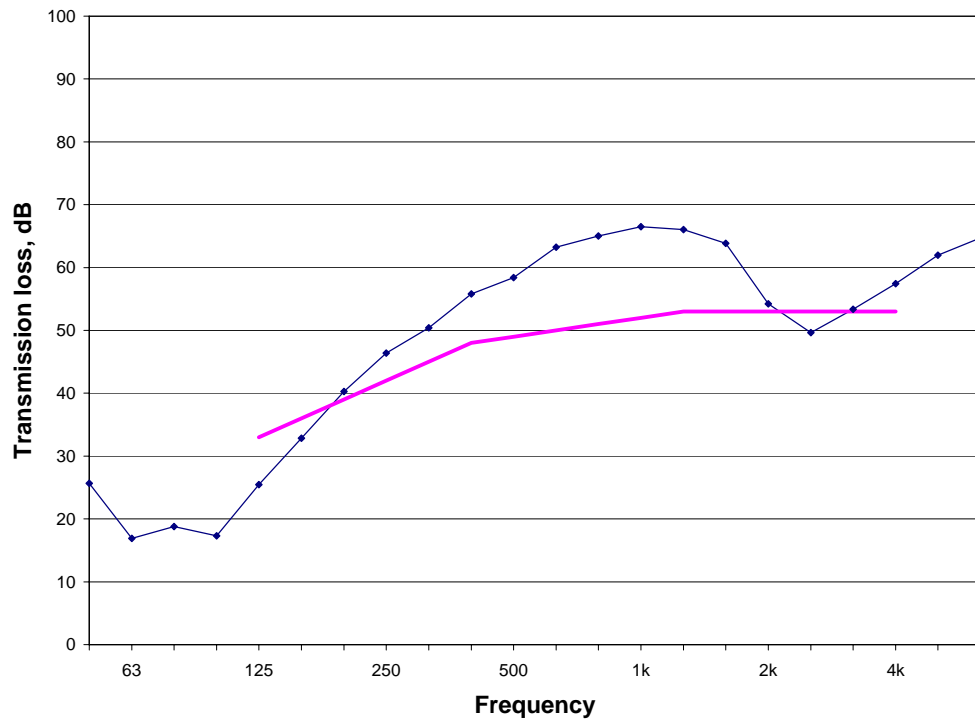


TestID	TL-92-437
STC	49
50 Hz	25.7
63 Hz	16.9
80 Hz	18.8
100 Hz	17.3
125 Hz	25.4
160 Hz	32.8
200 Hz	40.3
250 Hz	46.4
315 Hz	50.4
400 Hz	55.8
500 Hz	58.4
630 Hz	63.3
800 Hz	65.0
1000 Hz	66.5
1250 Hz	66.0
1600 Hz	63.9
2000 Hz	54.2
2500 Hz	49.6
3150 Hz	53.3
4000 Hz	57.4
5000 Hz	62.0
6300 Hz	64.7

TL-92-437

	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	gypsum board	gypsum board
material	CX	steel	C2	CX	CX
thickness mm	16	90	90	16	16
gauge		25			
spacing mm		406			
surface density kg/m <sup>2</sup>	10.9		4.1	11.0	11.0
linear density kg/m		0.6			
total weight kg	81.2	16.4	30.7	81.5	81.4
fastener spacing - edge mm	305			305	305
fastener spacing - field mm	305			610	305
fastener top track pattern	c			c	c
fastener base track pattern	c			c	c
stud attached to top track		yes			
double header					
orientation	vertical			vertical	vertical

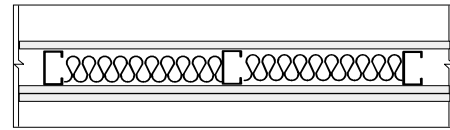
TL-92-437  
STC 49





G16\_SS90(406)\_CFS40\_2G16

Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm steel studs at 406 mm on centre
3	40 mm of sprayed cellulose fibre insulation in cavity
4	single layer of 16 mm type X gypsum board
5	single layer of 16 mm type X gypsum board

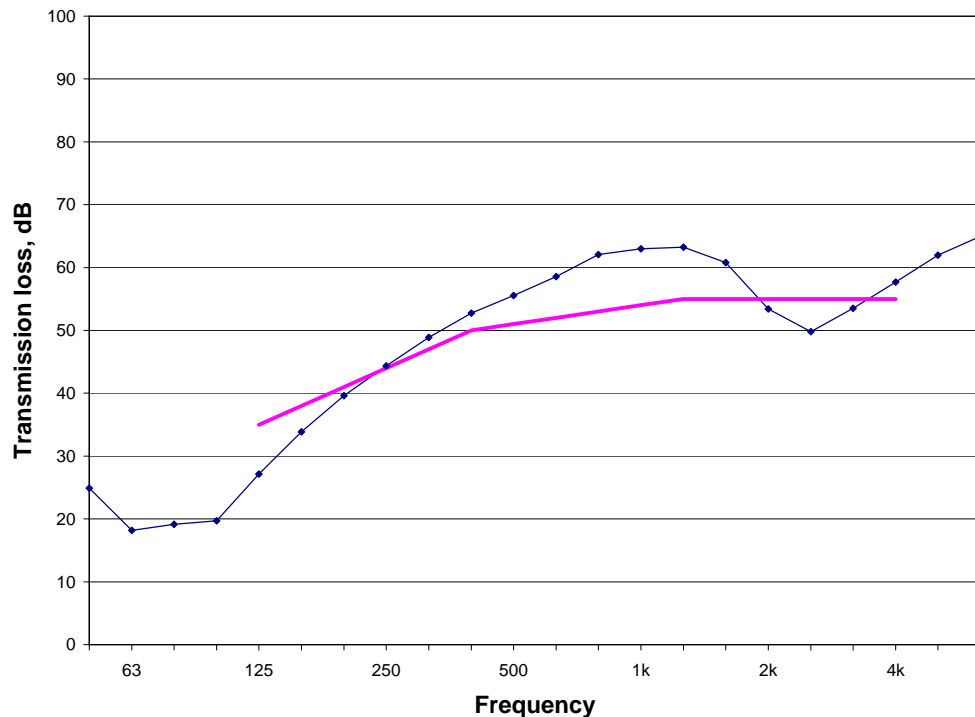


TestID	TL-92-440
STC	51
50 Hz	24.9
63 Hz	18.2
80 Hz	19.1
100 Hz	19.7
125 Hz	27.1
160 Hz	33.8
200 Hz	39.6
250 Hz	44.4
315 Hz	48.9
400 Hz	52.8
500 Hz	55.6
630 Hz	58.5
800 Hz	62.1
1000 Hz	63.0
1250 Hz	63.2
1600 Hz	60.8
2000 Hz	53.4
2500 Hz	49.8
3150 Hz	53.5
4000 Hz	57.7
5000 Hz	62.0
6300 Hz	65.0

TL-92-440

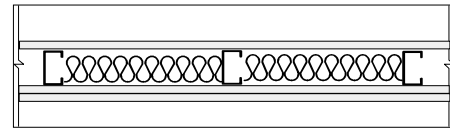
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	gypsum board	gypsum board
material	CX	steel	C1	CX	CX
thickness mm	16	90	40	16	16
gauge		25			
spacing mm		406			
surface density kg/m <sup>2</sup>	10.9		2.1	10.8	10.9
linear density kg/m		0.6			
total weight kg	81.2	16.0	15.5	80.5	81.0
fastener spacing - edge mm	305			305	305
fastener spacing - field mm	305			610	305
fastener top track pattern	c			c	c
fastener base track pattern	c			c	c
stud attached to top track		yes			
double header					
orientation	vertical			vertical	vertical

TL-92-440  
STC 51



G16\_SS90(406)\_CFS90\_2G16

Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm steel studs at 406 mm on centre
3	90 mm of sprayed cellulose fibre insulation in cavity
4	single layer of 16 mm type X gypsum board
5	single layer of 16 mm type X gypsum board

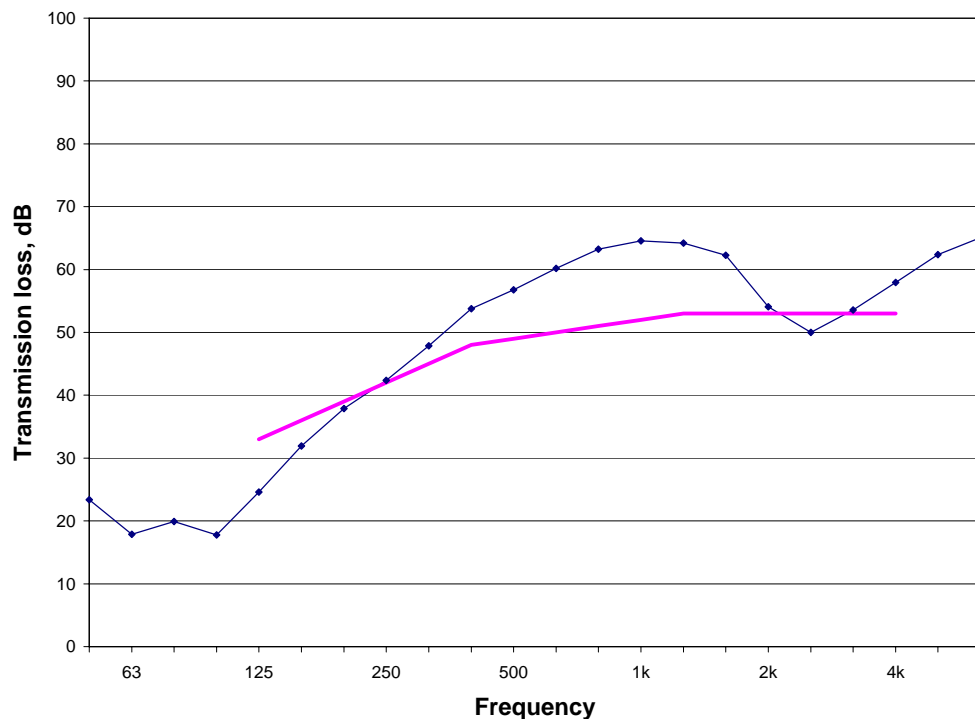


TestID	TL-93-050
STC	49
50 Hz	23.4
63 Hz	17.9
80 Hz	19.9
100 Hz	17.8
125 Hz	24.6
160 Hz	31.9
200 Hz	37.9
250 Hz	42.4
315 Hz	47.9
400 Hz	53.8
500 Hz	56.8
630 Hz	60.2
800 Hz	63.2
1000 Hz	64.5
1250 Hz	64.2
1600 Hz	62.3
2000 Hz	54.1
2500 Hz	50.0
3150 Hz	53.6
4000 Hz	57.9
5000 Hz	62.4
6300 Hz	65.1

TL-93-050

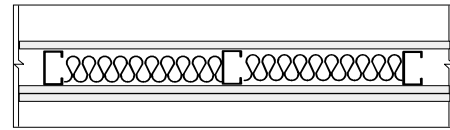
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	gypsum board	gypsum board
material	CX	steel	C1	CX	CX
thickness mm	16	90	90	16	16
gauge		25			
spacing mm		406			
surface density kg/m <sup>2</sup>	11.1		4.1	10.9	10.9
linear density kg/m		0.6			
total weight kg	82.2	16.0	30.5	81.0	81.0
fastener spacing - edge mm	305			305	305
fastener spacing - field mm	305			610	305
fastener top track pattern	c			c	c
fastener base track pattern	c			c	c
stud attached to top track		yes			
double header					
orientation	vertical			vertical	vertical

TL-93-050  
STC 49



G16\_SS90(406)\_GFB90\_2G16

Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm steel studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	single layer of 16 mm type X gypsum board
5	single layer of 16 mm type X gypsum board

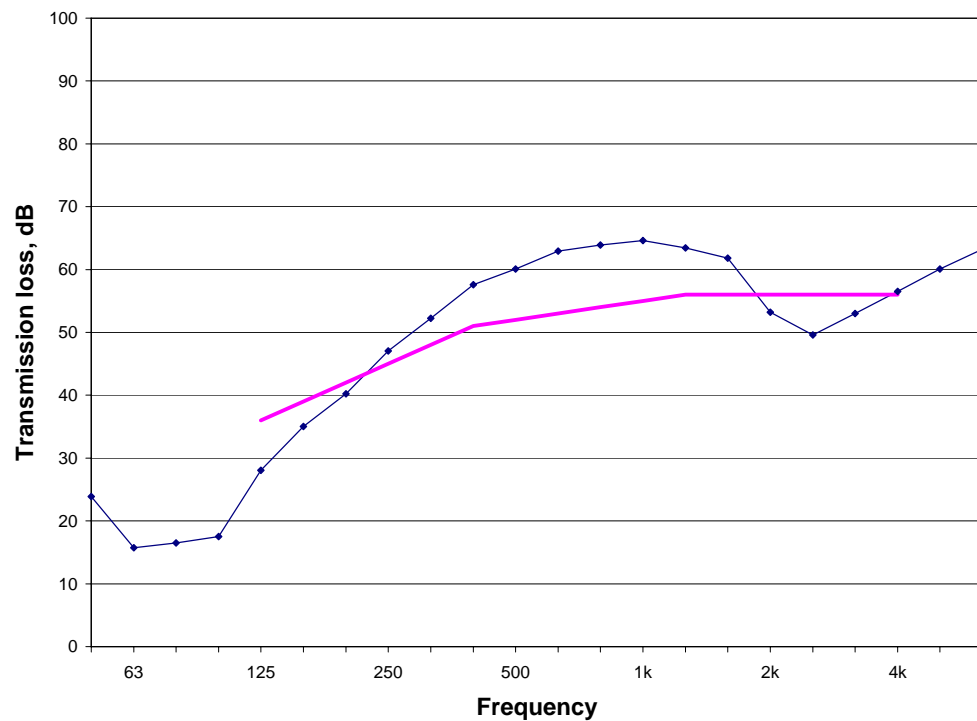


TestID	TL-92-420
STC	52
50 Hz	23.9
63 Hz	15.7
80 Hz	16.5
100 Hz	17.5
125 Hz	28.1
160 Hz	35.0
200 Hz	40.2
250 Hz	47.0
315 Hz	52.3
400 Hz	57.6
500 Hz	60.1
630 Hz	62.9
800 Hz	63.9
1000 Hz	64.6
1250 Hz	63.4
1600 Hz	61.8
2000 Hz	53.2
2500 Hz	49.6
3150 Hz	53.0
4000 Hz	56.5
5000 Hz	60.1
6300 Hz	63.2

TL-92-420

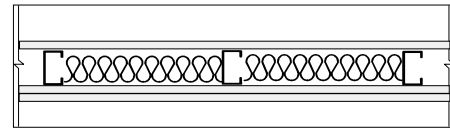
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	gypsum board	gypsum board
material	CX	steel	G1	CX	CX
thickness mm	16	90	90	16	16
gauge		25			
spacing mm		406			
surface density kg/m <sup>2</sup>	10.9		1.1	10.9	11.0
linear density kg/m		0.6			
total weight kg	80.7	15.8	8.2	81.3	81.4
fastener spacing - edge mm	305			305	305
fastener spacing - field mm	305			610	305
fastener top track pattern	c			c	c
fastener base track pattern	c			c	c
stud attached to top track		yes			
double header					
orientation	vertical			vertical	vertical

TL-92-420  
STC 52



G16\_SS90(406)\_GFB90\_2G16

Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm steel studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	single layer of 16 mm type X gypsum board
5	single layer of 16 mm type X gypsum board

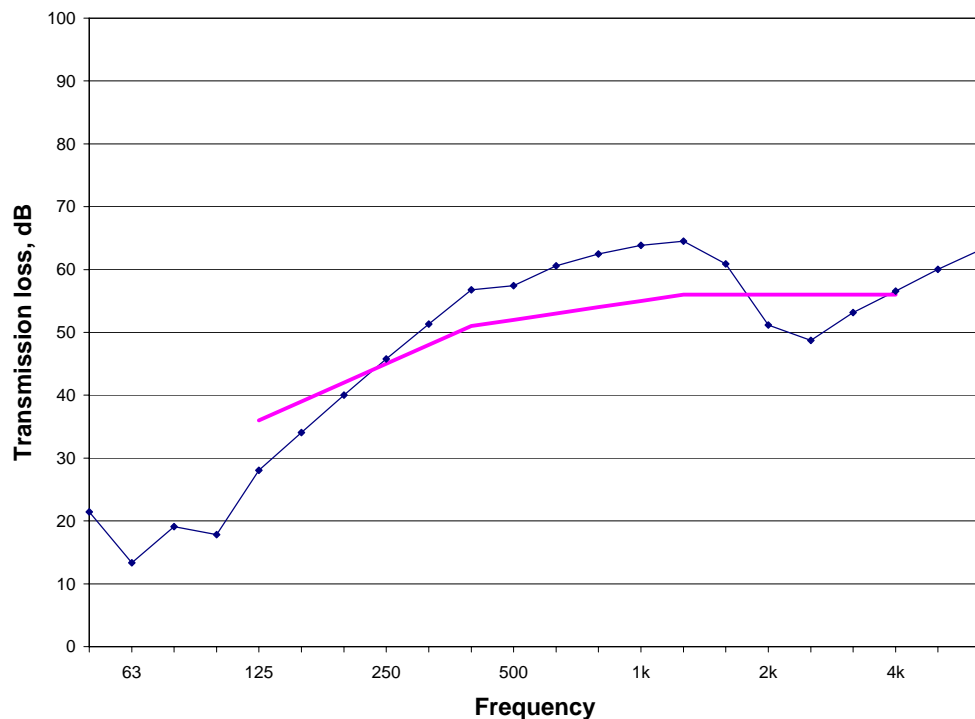


TestID	TL-93-350
STC	52
50 Hz	21.4
63 Hz	13.3
80 Hz	19.1
100 Hz	17.8
125 Hz	28.0
160 Hz	34.1
200 Hz	40.0
250 Hz	45.8
315 Hz	51.3
400 Hz	56.8
500 Hz	57.4
630 Hz	60.6
800 Hz	62.5
1000 Hz	63.8
1250 Hz	64.5
1600 Hz	60.9
2000 Hz	51.2
2500 Hz	48.7
3150 Hz	53.2
4000 Hz	56.5
5000 Hz	60.0
6300 Hz	63.1

TL-93-350

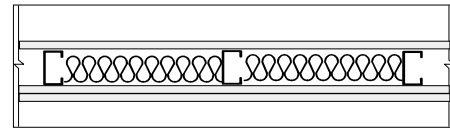
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	gypsum board	gypsum board
material	CX	steel	G1	CX	CX
thickness mm	16	90	90	16	16
gauge		25			
spacing mm		406			
surface density kg/m <sup>2</sup>	11.6		1.1	11.6	11.4
linear density kg/m		0.6			
total weight kg	85.9	16.2	8.0	86.1	85.0
fastener spacing - edge mm	305			305	305
fastener spacing - field mm	305			610	305
fastener top track pattern	d			d	d
fastener base track pattern	a			a	a
stud attached to top track					
double header					
orientation	vertical			vertical	vertical

TL-93-350  
STC 52



G16\_SS90(406)\_MFB40\_2G16

Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm steel studs at 406 mm on centre
3	40 mm of mineral fibre insulation in cavity
4	single layer of 16 mm type X gypsum board
5	single layer of 16 mm type X gypsum board

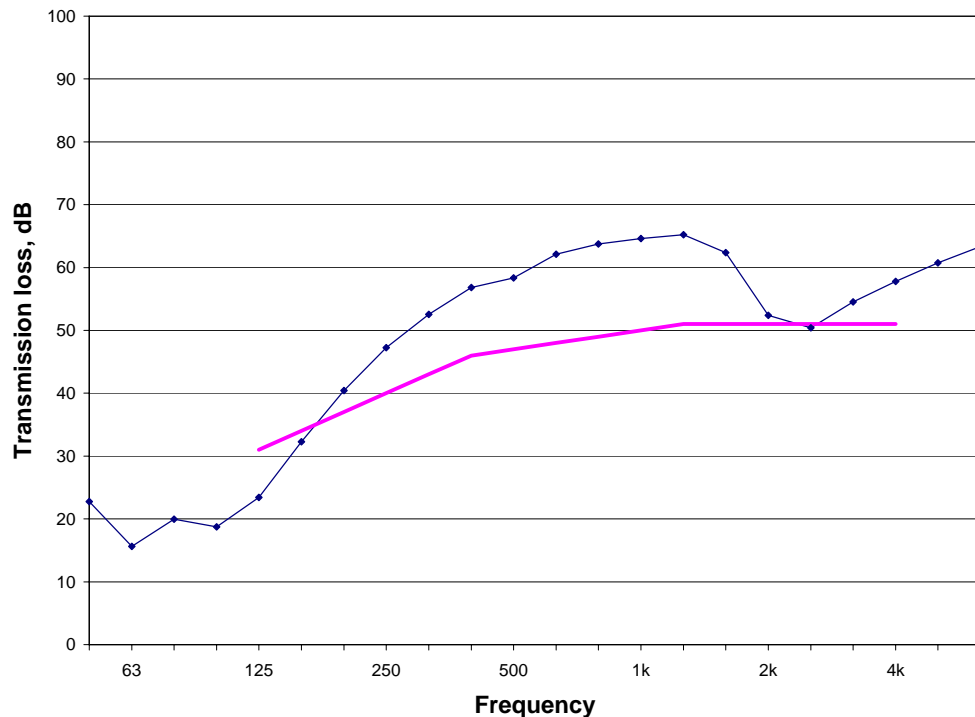


TestID	TL-93-341
STC	47
50 Hz	22.7
63 Hz	15.6
80 Hz	20.0
100 Hz	18.7
125 Hz	23.4
160 Hz	32.3
200 Hz	40.4
250 Hz	47.2
315 Hz	52.6
400 Hz	56.8
500 Hz	58.4
630 Hz	62.1
800 Hz	63.8
1000 Hz	64.6
1250 Hz	65.2
1600 Hz	62.3
2000 Hz	52.4
2500 Hz	50.4
3150 Hz	54.5
4000 Hz	57.8
5000 Hz	60.8
6300 Hz	63.4

TL-93-341

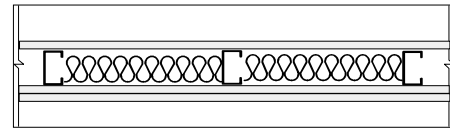
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	gypsum board	gypsum board
material	CX	steel	M2	CX	CX
thickness mm	16	90	40	16	16
gauge		25			
spacing mm		406			
surface density kg/m <sup>2</sup>	11.5		2.1	11.6	11.5
linear density kg/m		0.6			
total weight kg	85.7	16.2	15.2	85.9	85.1
fastener spacing - edge mm	305			305	305
fastener spacing - field mm	305			610	305
fastener top track pattern	d			d	d
fastener base track pattern	a			a	a
stud attached to top track					
double header					
orientation	vertical			vertical	vertical

TL-93-341  
STC 47



G16\_SS90(406)\_MFB75\_2G16

Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm steel studs at 406 mm on centre
3	75 mm of mineral fibre insulation in cavity
4	single layer of 16 mm type X gypsum board
5	single layer of 16 mm type X gypsum board

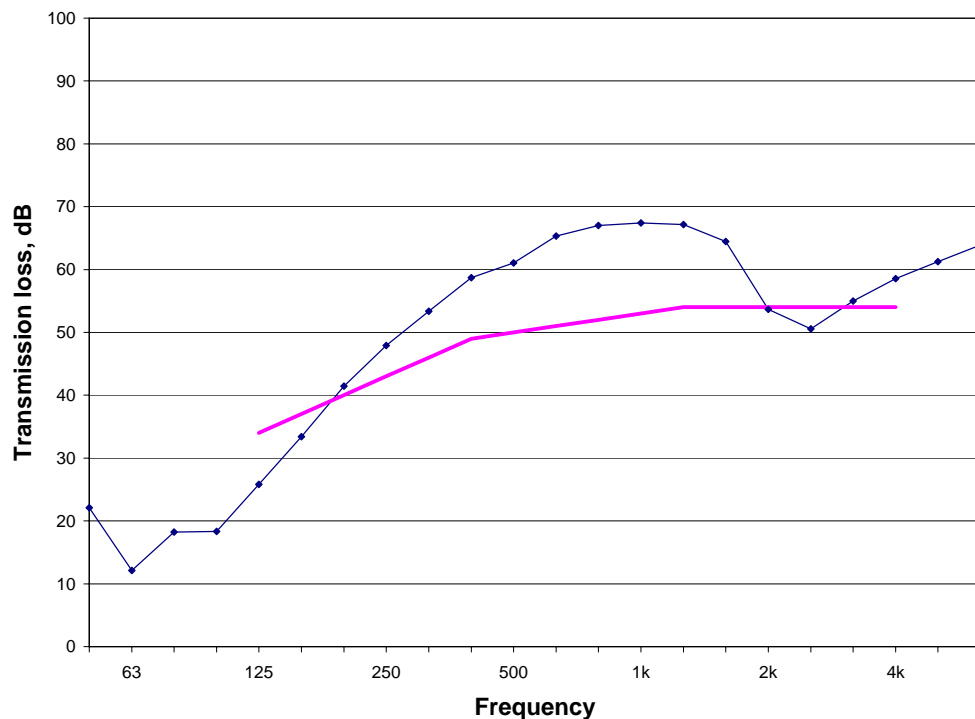


TestID	TL-93-333
STC	50
50 Hz	22.1
63 Hz	12.1
80 Hz	18.2
100 Hz	18.3
125 Hz	25.8
160 Hz	33.4
200 Hz	41.4
250 Hz	47.9
315 Hz	53.4
400 Hz	58.7
500 Hz	61.1
630 Hz	65.3
800 Hz	67.0
1000 Hz	67.4
1250 Hz	67.2
1600 Hz	64.5
2000 Hz	53.7
2500 Hz	50.6
3150 Hz	55.0
4000 Hz	58.5
5000 Hz	61.3
6300 Hz	63.9

TL-93-333

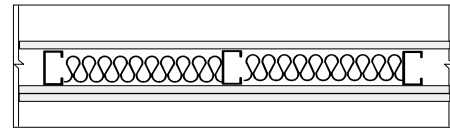
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	gypsum board	gypsum board
material	CX	steel	M2	CX	CX
thickness mm	16	90	75	16	16
gauge		25			
spacing mm		406			
surface density kg/m <sup>2</sup>	11.5		3.7	11.4	11.3
linear density kg/m		0.6			
total weight kg	85.2	16.2	26.3	84.8	84.2
fastener spacing - edge mm	305			305	305
fastener spacing - field mm	305			610	305
fastener top track pattern	d			d	d
fastener base track pattern	a			a	a
stud attached to top track					
double header					
orientation	vertical			vertical	vertical

TL-93-333  
STC 50



G16\_SS90(406)\_MFB83\_2G16

Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm steel studs at 406 mm on centre
3	83 mm of mineral fibre insulation in cavity
4	single layer of 16 mm type X gypsum board
5	single layer of 16 mm type X gypsum board

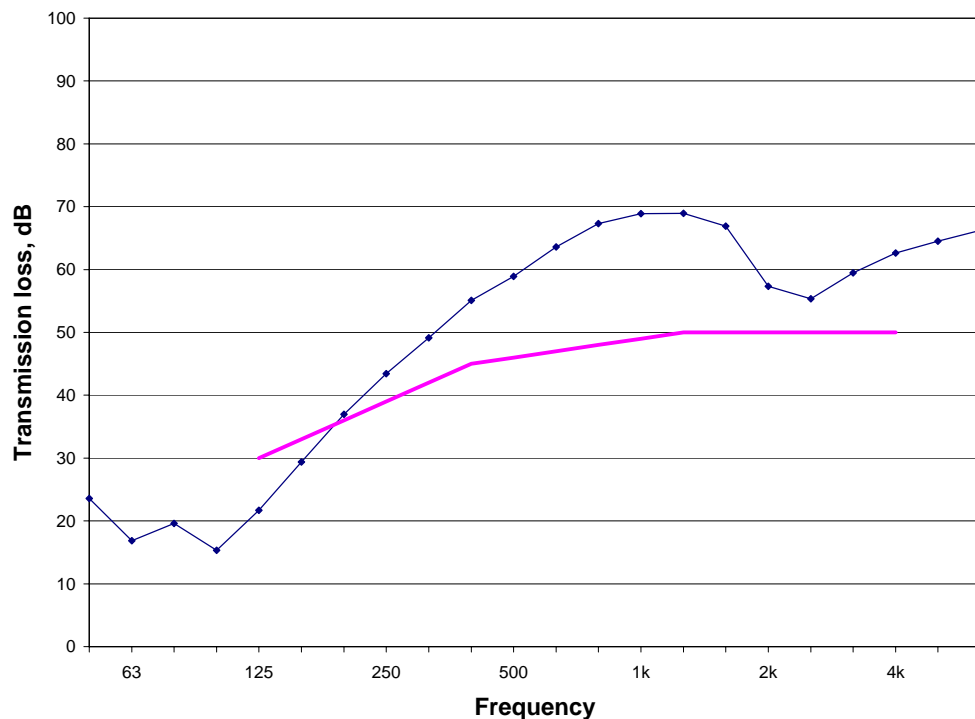


TestID	TL-93-337
STC	46
50 Hz	23.6
63 Hz	16.8
80 Hz	19.6
100 Hz	15.3
125 Hz	21.7
160 Hz	29.4
200 Hz	37.0
250 Hz	43.4
315 Hz	49.1
400 Hz	55.1
500 Hz	58.9
630 Hz	63.6
800 Hz	67.3
1000 Hz	68.9
1250 Hz	69.0
1600 Hz	66.9
2000 Hz	57.3
2500 Hz	55.3
3150 Hz	59.5
4000 Hz	62.6
5000 Hz	64.5
6300 Hz	66.3

TL-93-337

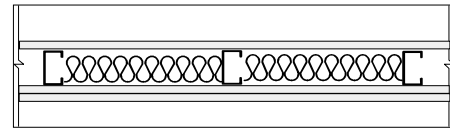
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	gypsum board	gypsum board
material	CX	steel	M3	CX	CX
thickness mm	16	90	83	16	16
gauge		25			
spacing mm		406			
surface density kg/m <sup>2</sup>	11.5		8.2	11.6	11.5
linear density kg/m		0.6			
total weight kg	85.2	16.2	60.7	86.0	85.3
fastener spacing - edge mm	305			305	305
fastener spacing - field mm	305			610	305
fastener top track pattern	d			d	d
fastener base track pattern	a			a	a
stud attached to top track					
double header					
orientation	vertical			vertical	vertical

TL-93-337  
STC 46



G16\_SS90(406)\_MFB90\_2G16

Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm steel studs at 406 mm on centre
3	90 mm of mineral fibre insulation in cavity
4	single layer of 16 mm type X gypsum board
5	single layer of 16 mm type X gypsum board

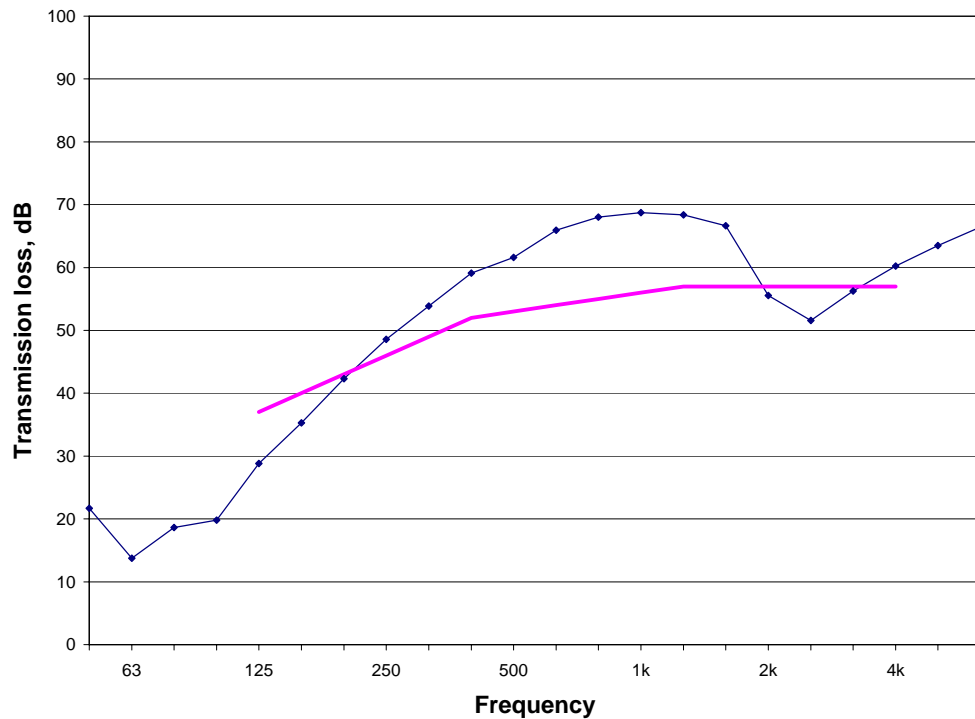


TestID	TL-93-329
STC	53
50 Hz	21.7
63 Hz	13.7
80 Hz	18.6
100 Hz	19.8
125 Hz	28.8
160 Hz	35.3
200 Hz	42.3
250 Hz	48.6
315 Hz	53.9
400 Hz	59.1
500 Hz	61.6
630 Hz	65.9
800 Hz	68.0
1000 Hz	68.8
1250 Hz	68.4
1600 Hz	66.6
2000 Hz	55.6
2500 Hz	51.6
3150 Hz	56.3
4000 Hz	60.2
5000 Hz	63.5
6300 Hz	66.5

TL-93-329

	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	gypsum board	gypsum board
material	CX	steel	M1	CX	CX
thickness mm	16	90	90	16	16
gauge		25			
spacing mm		406			
surface density kg/m <sup>2</sup>	11.5		3.2	11.4	11.3
linear density kg/m		0.6			
total weight kg	85.4	16.2	22.7	84.8	84.2
fastener spacing - edge mm	305			305	305
fastener spacing - field mm	305			610	305
fastener top track pattern	d			d	d
fastener base track pattern	a			a	a
stud attached to top track					
double header					
orientation	vertical			vertical	vertical

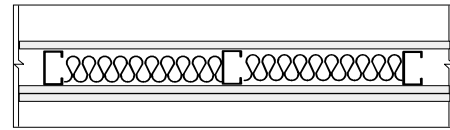
TL-93-329  
STC 53





G16\_SS90(610)\_GFB90\_2G16

Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm steel studs at 610 mm on centre
3	90 mm of glass fibre insulation in cavity
4	single layer of 16 mm type X gypsum board
5	single layer of 16 mm type X gypsum board

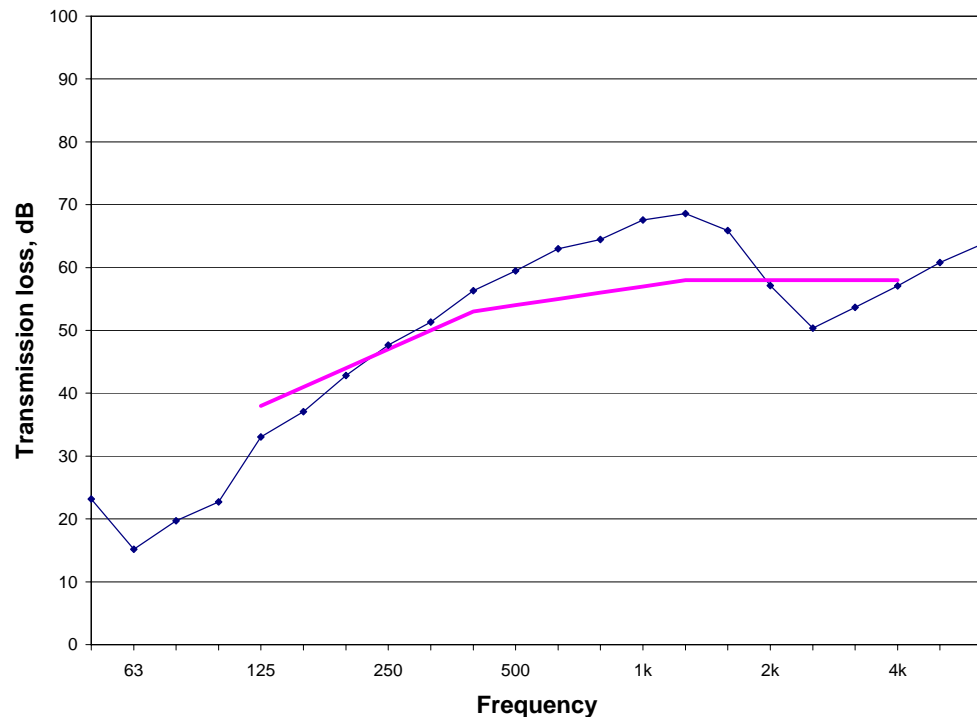


TestID	TL-92-368
STC	54
50 Hz	23.1
63 Hz	15.2
80 Hz	19.7
100 Hz	22.7
125 Hz	33.0
160 Hz	37.0
200 Hz	42.8
250 Hz	47.7
315 Hz	51.3
400 Hz	56.3
500 Hz	59.5
630 Hz	63.0
800 Hz	64.4
1000 Hz	67.6
1250 Hz	68.6
1600 Hz	65.9
2000 Hz	57.1
2500 Hz	50.4
3150 Hz	53.7
4000 Hz	57.1
5000 Hz	60.8
6300 Hz	63.8

TL-92-368

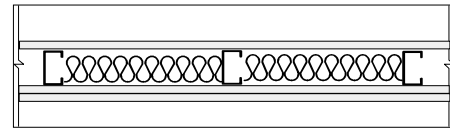
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	gypsum board	gypsum board
material	CX	steel	G1	CX	CX
thickness mm	16	90	90	16	16
gauge		25			
spacing mm		610			
surface density kg/m <sup>2</sup>	11.2		1.2	11.2	11.0
linear density kg/m		0.5			
total weight kg	83.5	11.4	8.8	83.6	82.0
fastener spacing - edge mm	305			305	305
fastener spacing - field mm	305			610	305
fastener top track pattern	c			c	c
fastener base track pattern	c			c	c
stud attached to top track		yes			
double header					
orientation	vertical			vertical	vertical

TL-92-368  
STC 54



G16\_SS90(610)\_GFB90\_G16\_G13

Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm steel studs at 610 mm on centre
3	90 mm of glass fibre insulation in cavity
4	single layer of 16 mm type X gypsum board
5	single layer of 13 mm gypsum board

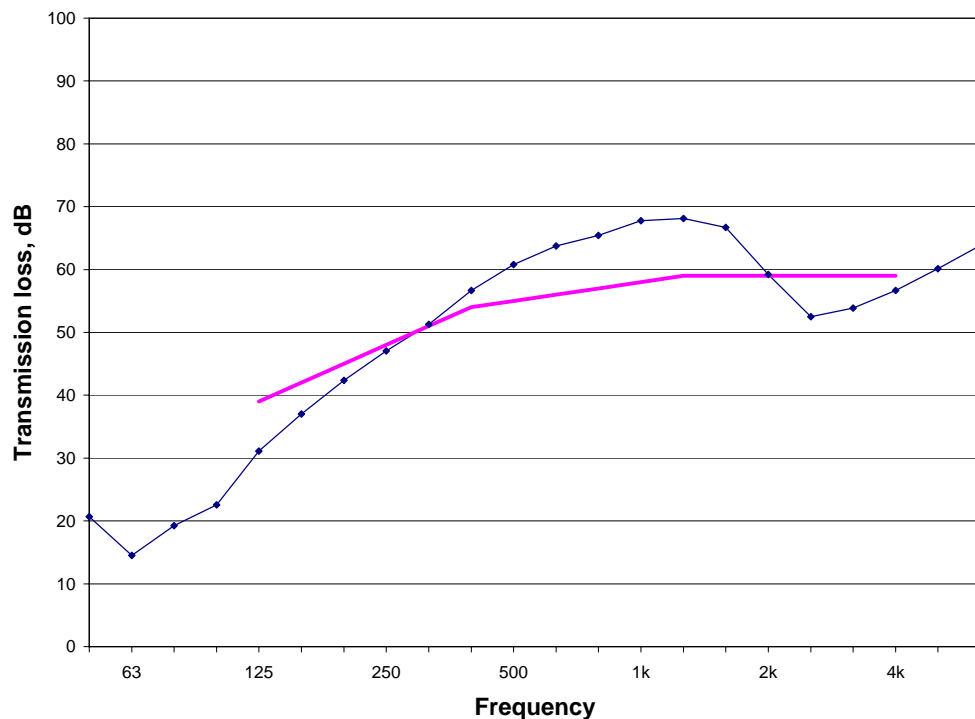


TestID	TL-92-370
STC	55
50 Hz	20.7
63 Hz	14.5
80 Hz	19.2
100 Hz	22.5
125 Hz	31.1
160 Hz	37.0
200 Hz	42.4
250 Hz	47.1
315 Hz	51.3
400 Hz	56.7
500 Hz	60.8
630 Hz	63.8
800 Hz	65.4
1000 Hz	67.8
1250 Hz	68.1
1600 Hz	66.7
2000 Hz	59.2
2500 Hz	52.5
3150 Hz	53.9
4000 Hz	56.7
5000 Hz	60.1
6300 Hz	63.8

TL-92-370

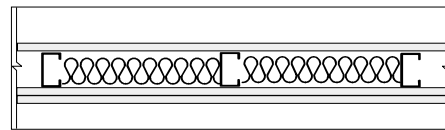
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	gypsum board	gypsum board
material	CX	steel	G1	CX	B
thickness mm	16	90	90	16	13
gauge		25			
spacing mm		610			
surface density kg/m <sup>2</sup>	10.9		1.2	11.0	8.2
linear density kg/m		0.5			
total weight kg	81.3	11.4	8.8	81.5	61.2
fastener spacing - edge mm	305			305	305
fastener spacing - field mm	305			610	305
fastener top track pattern	a			a	a
fastener base track pattern	a			a	a
stud attached to top track		yes			
double header					
orientation	vertical			vertical	vertical

TL-92-370  
STC 55



G16\_SS90(610)\_MFB40\_2G16

Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm steel studs at 610 mm on centre
3	40 mm of mineral fibre insulation in cavity
4	single layer of 16 mm type X gypsum board
5	single layer of 16 mm type X gypsum board

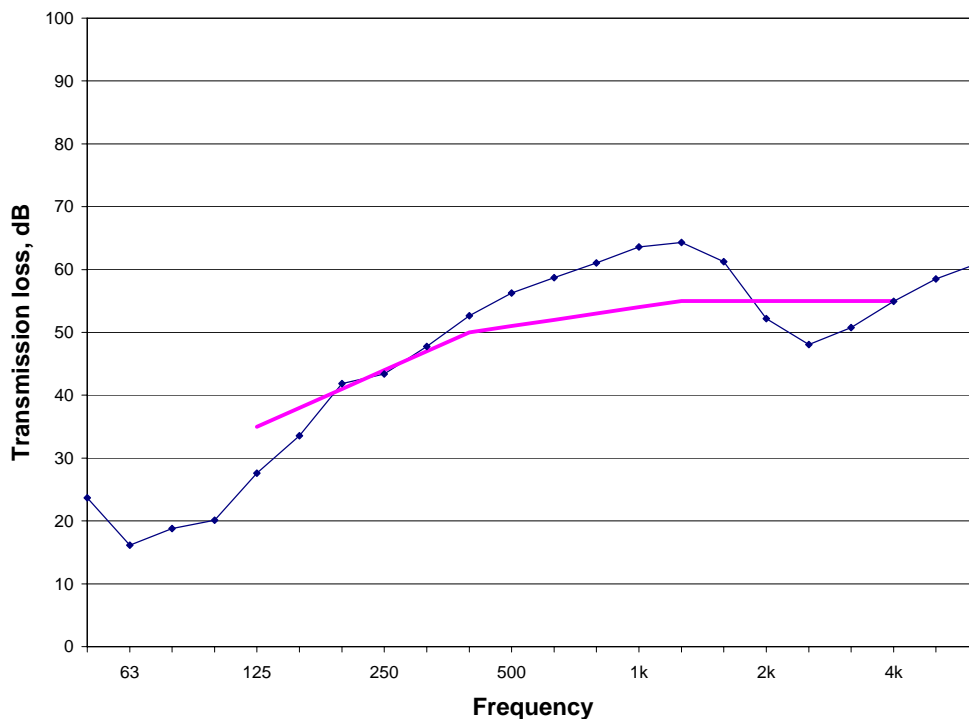


TestID	TL-92-397
STC	51
50 Hz	23.7
63 Hz	16.1
80 Hz	18.8
100 Hz	20.1
125 Hz	27.6
160 Hz	33.5
200 Hz	41.8
250 Hz	43.4
315 Hz	47.8
400 Hz	52.7
500 Hz	56.3
630 Hz	58.7
800 Hz	61.0
1000 Hz	63.6
1250 Hz	64.3
1600 Hz	61.3
2000 Hz	52.2
2500 Hz	48.1
3150 Hz	50.7
4000 Hz	54.9
5000 Hz	58.5
6300 Hz	61.0

TL-92-397

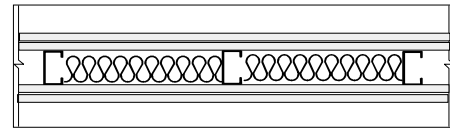
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	gypsum board	gypsum board
material	CX	steel	M2	CX	CX
thickness mm	16	90	40	16	16
gauge		25			
spacing mm		610			
surface density kg/m <sup>2</sup>	10.9		1.5	10.9	11.0
linear density kg/m		0.6			
total weight kg	81.3	12.6	11.0	81.2	81.6
fastener spacing - edge mm	305			305	305
fastener spacing - field mm	305			610	305
fastener top track pattern	c			c	c
fastener base track pattern	c			c	c
stud attached to top track		yes			
double header					
orientation	vertical			vertical	vertical

TL-92-397  
STC 51



2G13\_SS65(406)\_MFB65\_2G13

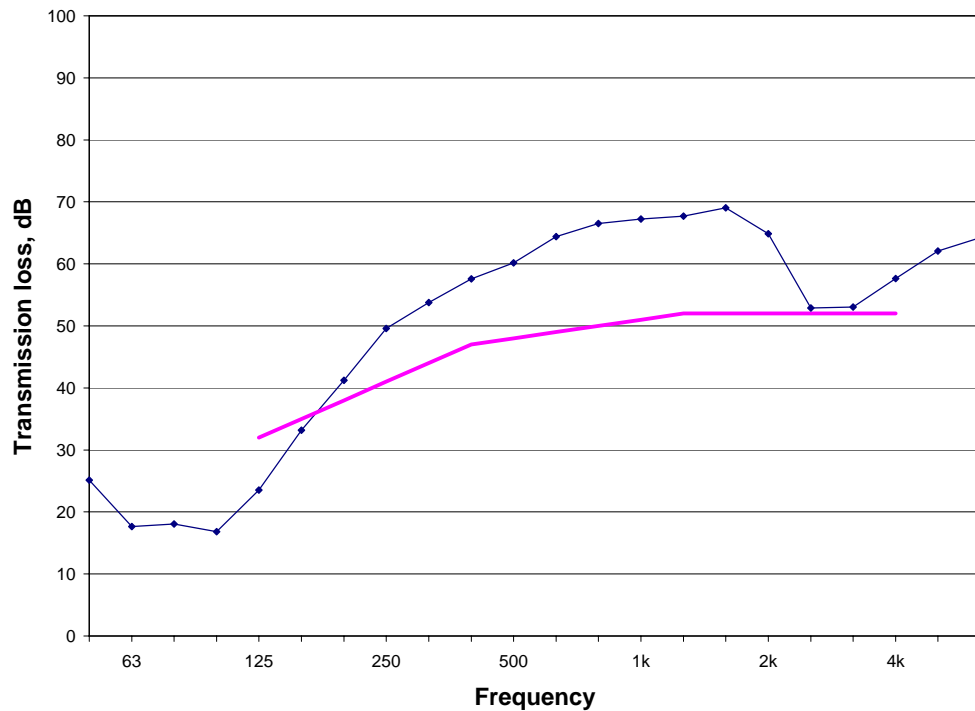
Element	Description:
1	single layer of 13 mm type X gypsum board
2	single layer of 13 mm type X gypsum board
3	65 mm steel studs at 406 mm on centre
4	65 mm of mineral fibre insulation in cavity
5	single layer of 13 mm type X gypsum board
6	single layer of 13 mm type X gypsum board



TestID	TL-93-066
STC	48
50 Hz	25.1
63 Hz	17.6
80 Hz	18.1
100 Hz	16.8
125 Hz	23.6
160 Hz	33.2
200 Hz	41.2
250 Hz	49.6
315 Hz	53.8
400 Hz	57.6
500 Hz	60.2
630 Hz	64.4
800 Hz	66.5
1000 Hz	67.2
1250 Hz	67.7
1600 Hz	69.0
2000 Hz	64.8
2500 Hz	52.9
3150 Hz	53.0
4000 Hz	57.6
5000 Hz	62.0
6300 Hz	64.2

TL-93-066	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	gypsum board	stud	insulation	gypsum board	gypsum board
material	AX	AX	steel	M1	AX	AX
thickness mm	13	13	65	65	13	13
gauge			25			
spacing mm			406			
surface density kg/m <sup>2</sup>	10.0	10.0		2.3	9.9	9.9
linear density kg/m			0.5			
total weight kg	74.1	74.1	13.0	17.4	73.7	73.9
fastener spacing - edge mm	305	305			305	305
fastener spacing - field mm	305	610			610	305
fastener top track pattern	c	c			c	c
fastener base track pattern	c	c			c	c
stud attached to top track			yes			
double header						
orientation	vertical	vertical			vertical	vertical

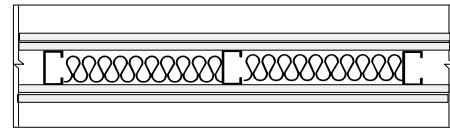
TL-93-066  
STC 48



2G13\_SS65(406)\_MFB65\_2G13

**Element Description:**

- 1 single layer of 13 mm gypsum board
- 2 single layer of 13 mm gypsum board
- 3 65 mm steel studs at 406 mm on centre
- 4 65 mm of mineral fibre insulation in cavity
- 5 single layer of 13 mm gypsum board
- 6 single layer of 13 mm gypsum board

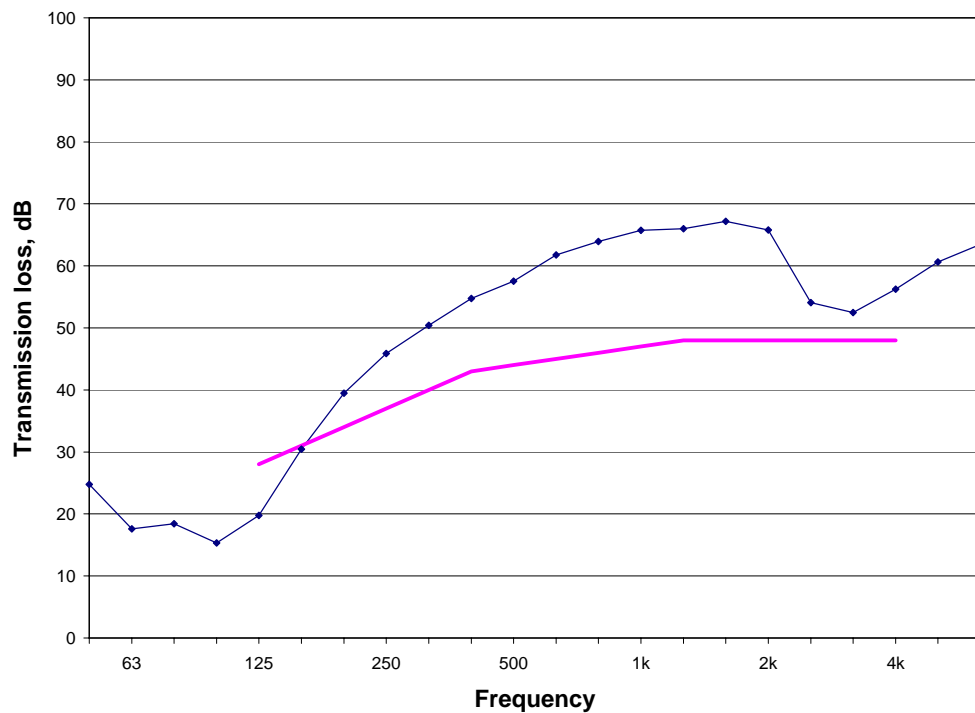


TestID	TL-93-072
STC	44
50 Hz	24.8
63 Hz	17.6
80 Hz	18.4
100 Hz	15.3
125 Hz	19.7
160 Hz	30.4
200 Hz	39.5
250 Hz	45.9
315 Hz	50.4
400 Hz	54.7
500 Hz	57.5
630 Hz	61.7
800 Hz	63.9
1000 Hz	65.8
1250 Hz	66.0
1600 Hz	67.2
2000 Hz	65.8
2500 Hz	54.1
3150 Hz	52.5
4000 Hz	56.2
5000 Hz	60.6
6300 Hz	63.5

TL-93-072

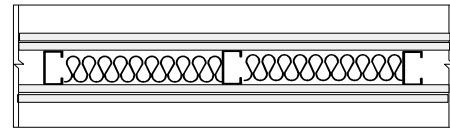
	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	gypsum board	stud	insulation	gypsum board	gypsum board
material	B	B	steel	M1	B	B
thickness mm	13	13	65	65	13	13
gauge			25			
spacing mm			406			
surface density kg/m <sup>2</sup>	8.2	8.2		2.3	8.3	8.3
linear density kg/m			0.5			
total weight kg	61.1	60.8	13.0	17.4	61.4	61.4
fastener spacing - edge mm	305	305			305	305
fastener spacing - field mm	305	610			610	305
fastener top track pattern	c	c			c	c
fastener base track pattern	c	c			c	c
stud attached to top track			yes			
double header						
orientation	vertical	vertical			vertical	vertical

TL-93-072  
STC 44



2G13\_SS65(610)\_GFB65\_2G13

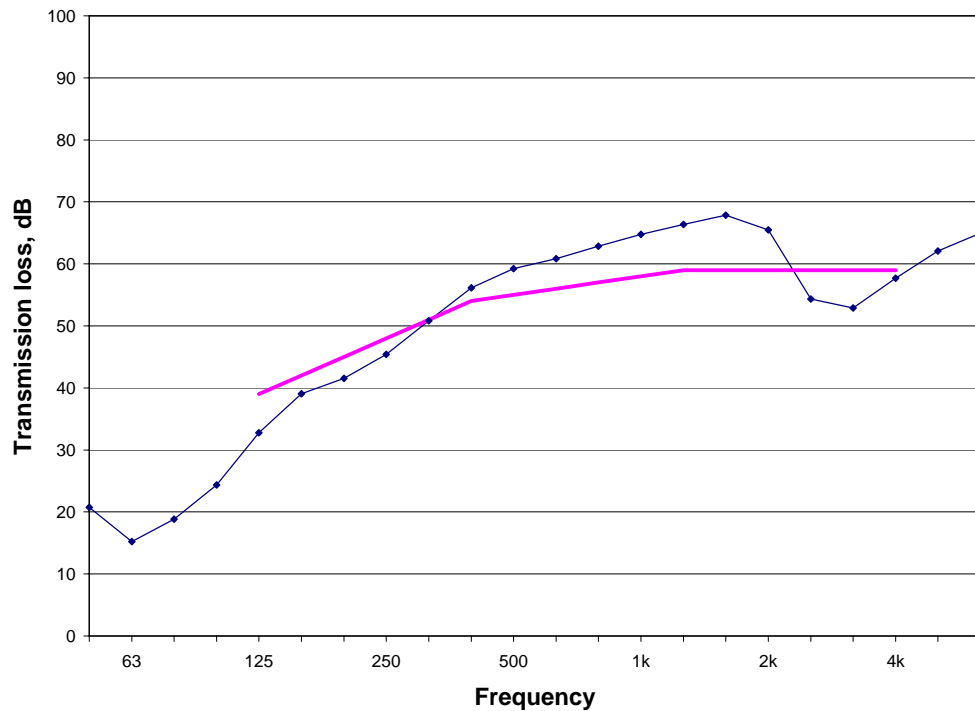
Element	Description:
1	single layer of 13 mm type X gypsum board
2	single layer of 13 mm type X gypsum board
3	65 mm steel studs at 610 mm on centre
4	65 mm of glass fibre insulation in cavity
5	single layer of 13 mm type X gypsum board
6	single layer of 13 mm type X gypsum board



TestID	TL-93-040
STC	55
50 Hz	20.7
63 Hz	15.2
80 Hz	18.8
100 Hz	24.4
125 Hz	32.8
160 Hz	39.1
200 Hz	41.5
250 Hz	45.4
315 Hz	50.8
400 Hz	56.1
500 Hz	59.3
630 Hz	60.8
800 Hz	62.8
1000 Hz	64.7
1250 Hz	66.4
1600 Hz	67.8
2000 Hz	65.5
2500 Hz	54.3
3150 Hz	52.9
4000 Hz	57.7
5000 Hz	62.1
6300 Hz	64.9

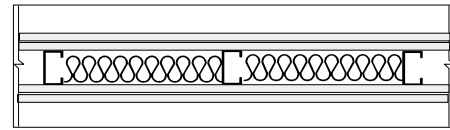
TL-93-040	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	gypsum board	stud	insulation	gypsum board	gypsum board
material	AX	AX	steel	G1	AX	AX
thickness mm	13	13	65	65	13	13
gauge			25			
spacing mm			610			
surface density kg/m <sup>2</sup>	10.0	10.0		0.8	10.1	10.0
linear density kg/m			0.5			
total weight kg	74.5	74.3	9.8	5.9	75.2	74.4
fastener spacing - edge mm	305	305			305	305
fastener spacing - field mm	305	610			610	305
fastener top track pattern	c	c			c	c
fastener base track pattern	c	c			c	c
stud attached to top track			yes			
double header						
orientation	vertical	vertical			vertical	vertical

TL-93-040  
STC 55



2G13\_SS65(610)\_GFB65\_2G13

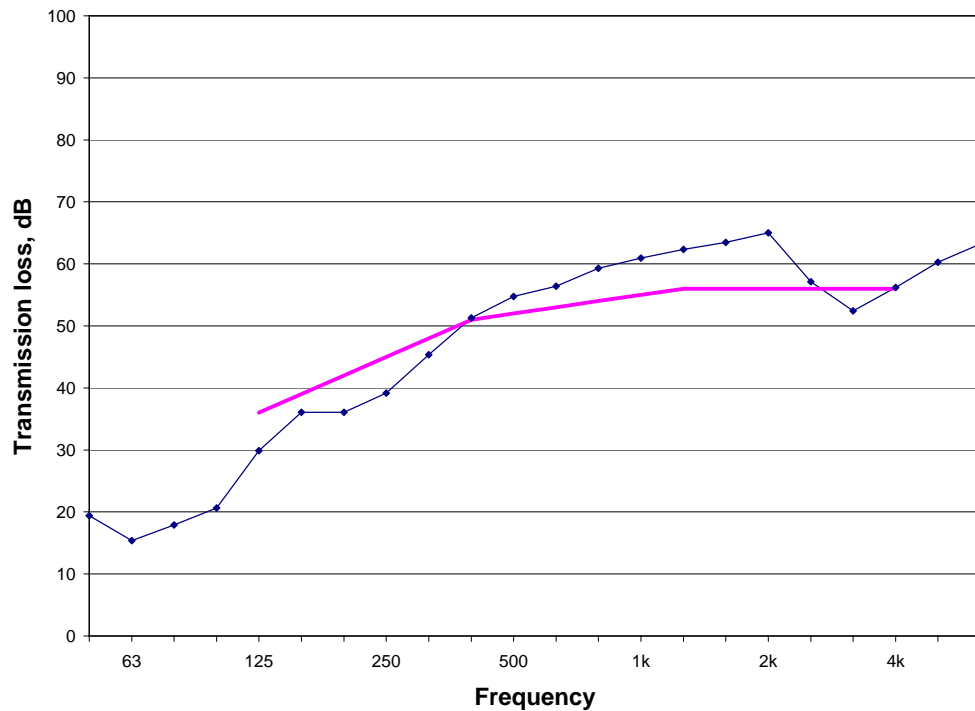
Element	Description:
1	single layer of 13 mm gypsum board
2	single layer of 13 mm gypsum board
3	65 mm steel studs at 610 mm on centre
4	65 mm of glass fibre insulation in cavity
5	single layer of 13 mm gypsum board
6	single layer of 13 mm gypsum board



TestID	TL-93-046
STC	52
50 Hz	19.4
63 Hz	15.4
80 Hz	17.9
100 Hz	20.6
125 Hz	29.9
160 Hz	36.1
200 Hz	36.1
250 Hz	39.1
315 Hz	45.4
400 Hz	51.3
500 Hz	54.8
630 Hz	56.4
800 Hz	59.3
1000 Hz	60.9
1250 Hz	62.4
1600 Hz	63.4
2000 Hz	65.0
2500 Hz	57.1
3150 Hz	52.4
4000 Hz	56.2
5000 Hz	60.3
6300 Hz	63.2

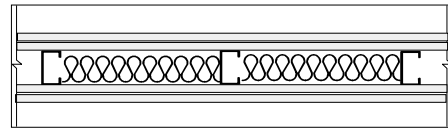
TL-93-046	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	gypsum board	stud	insulation	gypsum board	gypsum board
material	B	B	steel	G1	B	B
thickness mm	13	13	65	65	13	13
gauge			25			
spacing mm			610			
surface density kg/m <sup>2</sup>	8.1	8.3		0.8	8.3	8.3
linear density kg/m			0.5			
total weight kg	60.5	61.7	9.9	5.9	61.3	61.6
fastener spacing - edge mm	305	305			305	305
fastener spacing - field mm	305	610			610	305
fastener top track pattern	c	c			c	c
fastener base track pattern	c	c			c	c
stud attached to top track			yes			
double header						
orientation	vertical	vertical			vertical	vertical

TL-93-046  
STC 52



2G13\_SS65(610)\_MFB65\_2G13

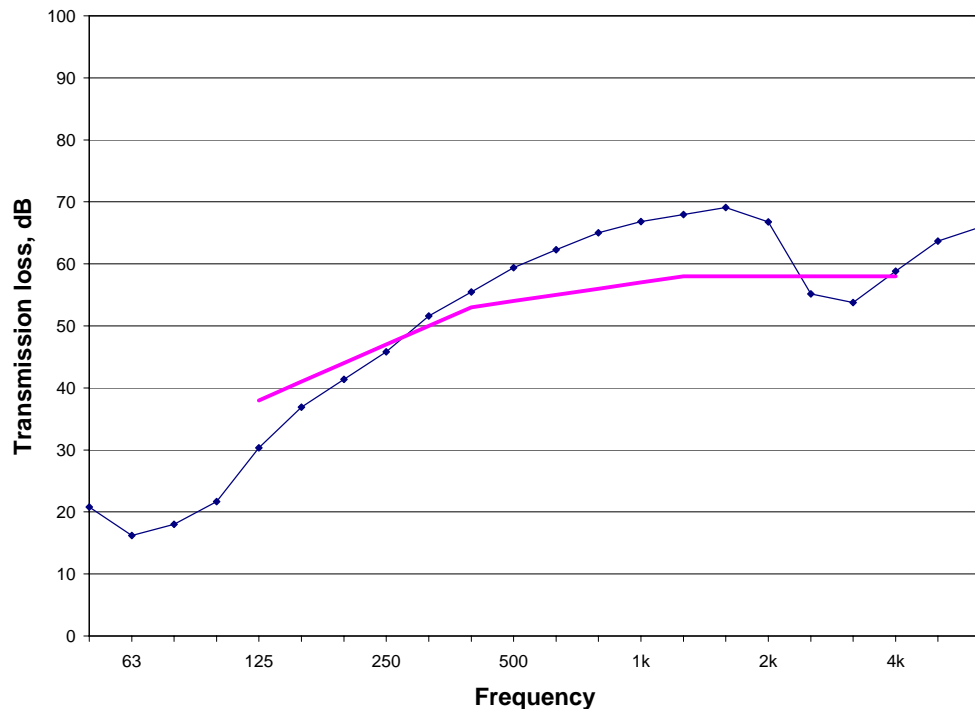
Element	Description:
1	single layer of 13 mm type X gypsum board
2	single layer of 13 mm type X gypsum board
3	65 mm steel studs at 610 mm on centre
4	65 mm of mineral fibre insulation in cavity
5	single layer of 13 mm type X gypsum board
6	single layer of 13 mm type X gypsum board



TestID	TL-93-056
STC	54
50 Hz	20.8
63 Hz	16.2
80 Hz	18.0
100 Hz	21.7
125 Hz	30.3
160 Hz	36.9
200 Hz	41.4
250 Hz	45.8
315 Hz	51.6
400 Hz	55.5
500 Hz	59.4
630 Hz	62.3
800 Hz	65.0
1000 Hz	66.8
1250 Hz	67.9
1600 Hz	69.1
2000 Hz	66.8
2500 Hz	55.1
3150 Hz	53.8
4000 Hz	58.8
5000 Hz	63.7
6300 Hz	66.0

TL-93-056	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	gypsum board	stud	insulation	gypsum board	gypsum board
material	AX	AX	steel	M1	AX	AX
thickness mm	13	13	65	65	13	13
gauge			25			
spacing mm			610			
surface density kg/m <sup>2</sup>	10.1	10.0		2.2	10.0	10.1
linear density kg/m			0.5			
total weight kg	74.9	74.1	9.9	16.6	74.0	74.9
fastener spacing - edge mm	305	305			305	305
fastener spacing - field mm	305	610			610	305
fastener top track pattern	c	c			c	c
fastener base track pattern	c	c			c	c
stud attached to top track			yes			
double header						
orientation	vertical	vertical			vertical	vertical

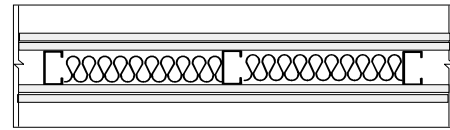
TL-93-056  
STC 54





2G13\_SS90(406)\_GFB90\_2G13

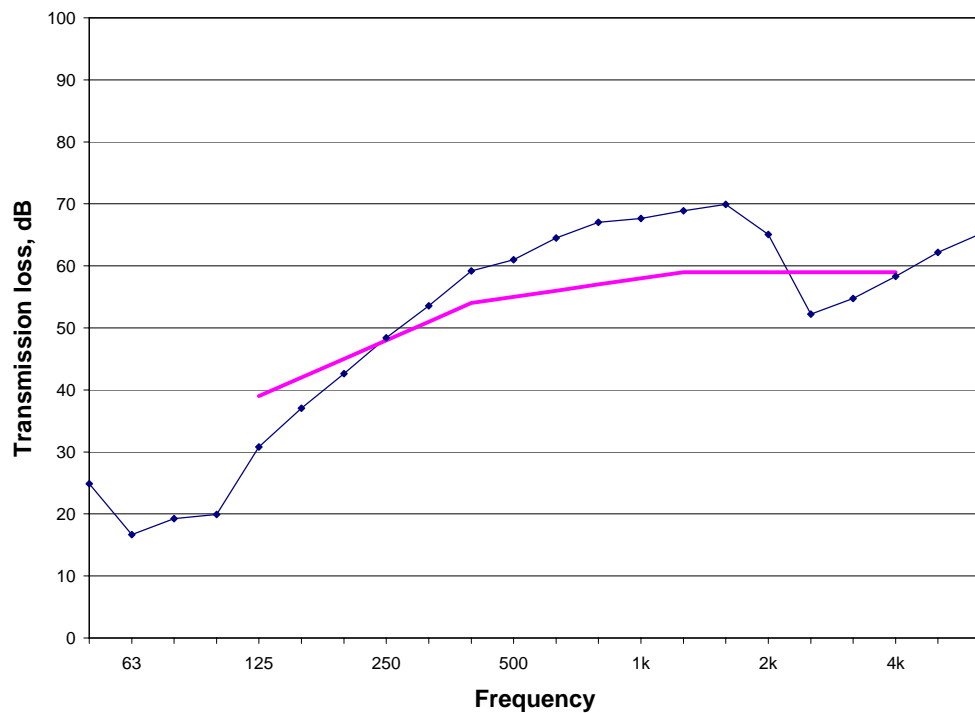
Element	Description:
1	single layer of 13 mm type X gypsum board
2	single layer of 13 mm type X gypsum board
3	90 mm steel studs at 406 mm on centre
4	90 mm of glass fibre insulation in cavity
5	single layer of 13 mm type X gypsum board
6	single layer of 13 mm type X gypsum board



TestID	TL-92-424
STC	55
50 Hz	24.9
63 Hz	16.7
80 Hz	19.2
100 Hz	19.9
125 Hz	30.8
160 Hz	37.0
200 Hz	42.6
250 Hz	48.4
315 Hz	53.6
400 Hz	59.2
500 Hz	61.0
630 Hz	64.5
800 Hz	67.0
1000 Hz	67.7
1250 Hz	68.9
1600 Hz	69.9
2000 Hz	65.1
2500 Hz	52.2
3150 Hz	54.7
4000 Hz	58.3
5000 Hz	62.2
6300 Hz	65.2

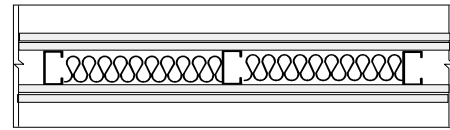
TL-92-424	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	gypsum board	stud	insulation	gypsum board	gypsum board
material	AX	AX	steel	G1	AX	AX
thickness mm	13	13	90	90	13	13
gauge			25			
spacing mm			406			
surface density kg/m <sup>2</sup>	9.9	10.0		1.1	10.0	10.0
linear density kg/m			0.6			
total weight kg	73.7	74.3	15.8	8.2	74.2	74.0
fastener spacing - edge mm	305	305			305	305
fastener spacing - field mm	305	610			610	305
fastener top track pattern	c	c			c	c
fastener base track pattern	c	c			c	c
stud attached to top track			yes			
double header						
orientation	vertical	vertical			vertical	vertical

TL-92-424  
STC 55



2G13\_SS90(406)\_GFB90\_2G13

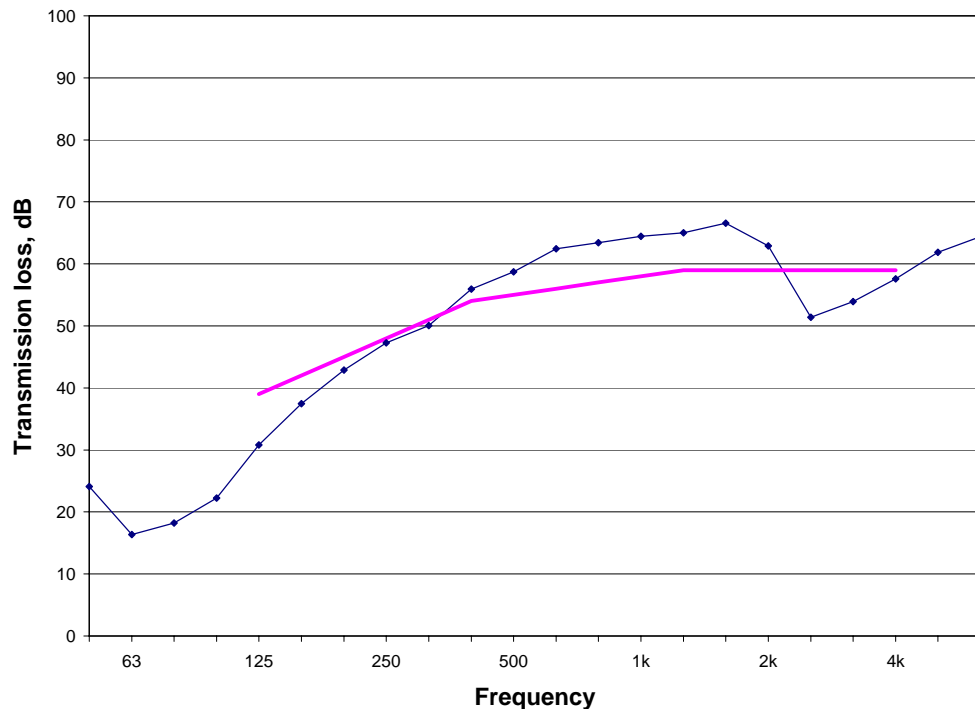
Element	Description:
1	single layer of 13 mm type X gypsum board
2	single layer of 13 mm type X gypsum board
3	90 mm steel studs at 406 mm on centre
4	90 mm of glass fibre insulation in cavity
5	single layer of 13 mm type X gypsum board
6	single layer of 13 mm type X gypsum board



TestID	TL-92-427
STC	55
50 Hz	24.1
63 Hz	16.3
80 Hz	18.2
100 Hz	22.2
125 Hz	30.8
160 Hz	37.5
200 Hz	42.9
250 Hz	47.3
315 Hz	50.1
400 Hz	55.9
500 Hz	58.7
630 Hz	62.4
800 Hz	63.4
1000 Hz	64.4
1250 Hz	65.0
1600 Hz	66.5
2000 Hz	62.9
2500 Hz	51.4
3150 Hz	53.9
4000 Hz	57.6
5000 Hz	61.9
6300 Hz	64.4

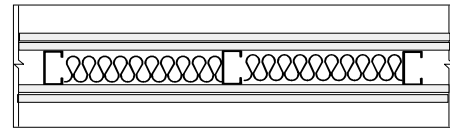
TL-92-427	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	gypsum board	stud	insulation	gypsum board	gypsum board
material	BX	BX	steel	G1	BX	BX
thickness mm	13	13	90	90	13	13
gauge			25			
spacing mm			406			
surface density kg/m <sup>2</sup>	9.6	9.7		1.1	9.8	9.7
linear density kg/m			0.6			
total weight kg	71.5	72.3	16.6	8.2	72.6	71.9
fastener spacing - edge mm	305	305			305	305
fastener spacing - field mm	305	610			610	305
fastener top track pattern	c	c			c	c
fastener base track pattern	c	c			c	c
stud attached to top track			yes			
double header						
orientation	vertical	vertical			vertical	vertical

TL-92-427  
STC 55



2G13\_SS90(406)\_GFB90\_2G13

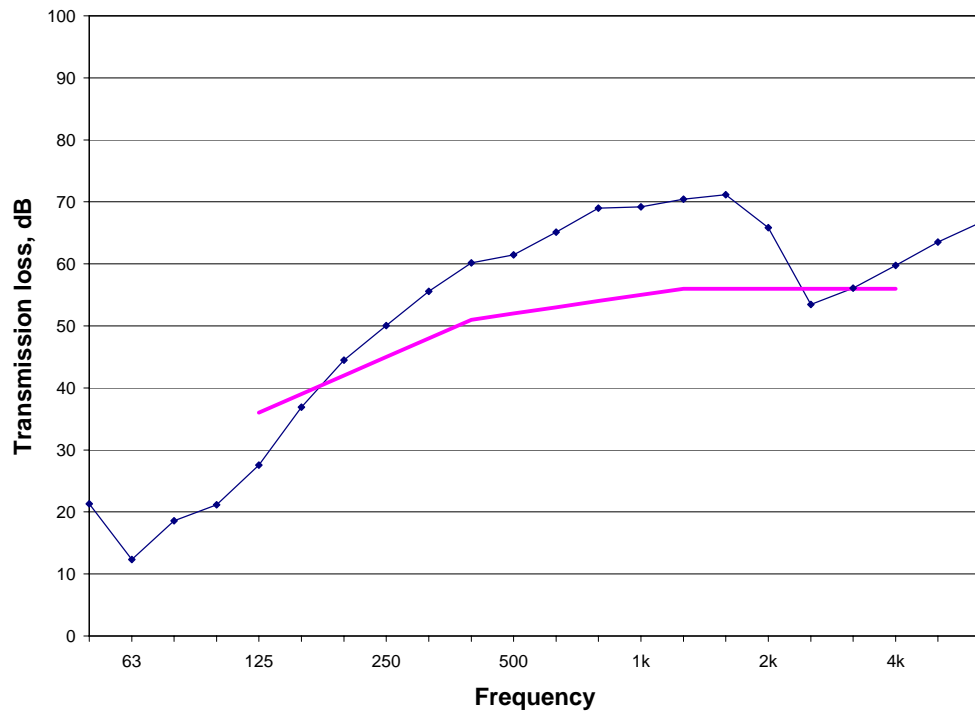
Element	Description:
1	single layer of 13 mm type X gypsum board
2	single layer of 13 mm type X gypsum board
3	90 mm steel studs at 406 mm on centre
4	90 mm of glass fibre insulation in cavity
5	single layer of 13 mm type X gypsum board
6	single layer of 13 mm type X gypsum board



TestID	TL-93-346
STC	52
50 Hz	21.3
63 Hz	12.3
80 Hz	18.6
100 Hz	21.1
125 Hz	27.6
160 Hz	36.9
200 Hz	44.5
250 Hz	50.1
315 Hz	55.6
400 Hz	60.2
500 Hz	61.5
630 Hz	65.1
800 Hz	69.0
1000 Hz	69.2
1250 Hz	70.4
1600 Hz	71.1
2000 Hz	65.8
2500 Hz	53.4
3150 Hz	56.1
4000 Hz	59.8
5000 Hz	63.5
6300 Hz	66.6

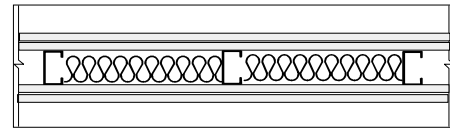
TL-93-346	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	gypsum board	stud	insulation	gypsum board	gypsum board
material	AX	AX	steel	G1	AX	AX
thickness mm	13	13	90	90	13	13
gauge			25			
spacing mm			406			
surface density kg/m <sup>2</sup>	10.0	10.2		1.1	10.2	10.3
linear density kg/m			0.6			
total weight kg	74.2	75.6	16.2	8.0	76.1	76.8
fastener spacing - edge mm	305	305			305	305
fastener spacing - field mm	305	610			610	305
fastener top track pattern	d				d	d
fastener base track pattern	a	a			a	a
stud attached to top track						
double header						
orientation	vertical	vertical			vertical	vertical

TL-93-346  
STC 52



2G13\_SS90(406)\_GFB90\_2G13

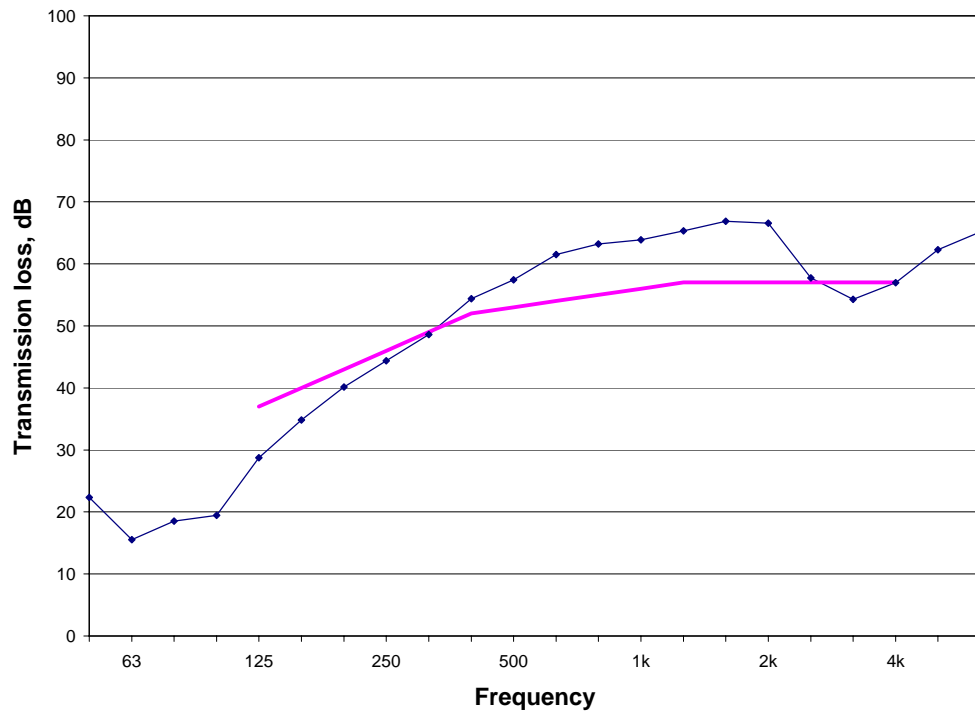
Element	Description:
1	single layer of 13 mm gypsum board
2	single layer of 13 mm gypsum board
3	90 mm steel studs at 406 mm on centre
4	90 mm of glass fibre insulation in cavity
5	single layer of 13 mm gypsum board
6	single layer of 13 mm gypsum board



TestID	TL-92-430
STC	53
50 Hz	22.3
63 Hz	15.5
80 Hz	18.5
100 Hz	19.5
125 Hz	28.8
160 Hz	34.8
200 Hz	40.1
250 Hz	44.4
315 Hz	48.6
400 Hz	54.4
500 Hz	57.4
630 Hz	61.5
800 Hz	63.2
1000 Hz	63.9
1250 Hz	65.3
1600 Hz	66.9
2000 Hz	66.6
2500 Hz	57.7
3150 Hz	54.3
4000 Hz	57.0
5000 Hz	62.3
6300 Hz	65.2

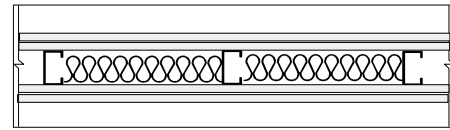
TL-92-430	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	gypsum board	stud	insulation	gypsum board	gypsum board
material	B	B	steel	G1	B	B
thickness mm	13	13	90	90	13	13
gauge			25			
spacing mm			406			
surface density kg/m <sup>2</sup>	8.2	8.2		1.1	8.2	8.3
linear density kg/m			0.6			
total weight kg	60.9	60.9	16.6	8.2	61.2	61.4
fastener spacing - edge mm	305	305			305	305
fastener spacing - field mm	305	610			610	305
fastener top track pattern	c	c			c	c
fastener base track pattern	c	c			c	c
stud attached to top track			yes			
double header						
orientation	vertical	vertical			vertical	vertical

TL-92-430  
STC 53



2G13\_SS90(406)\_GFB90\_2G13

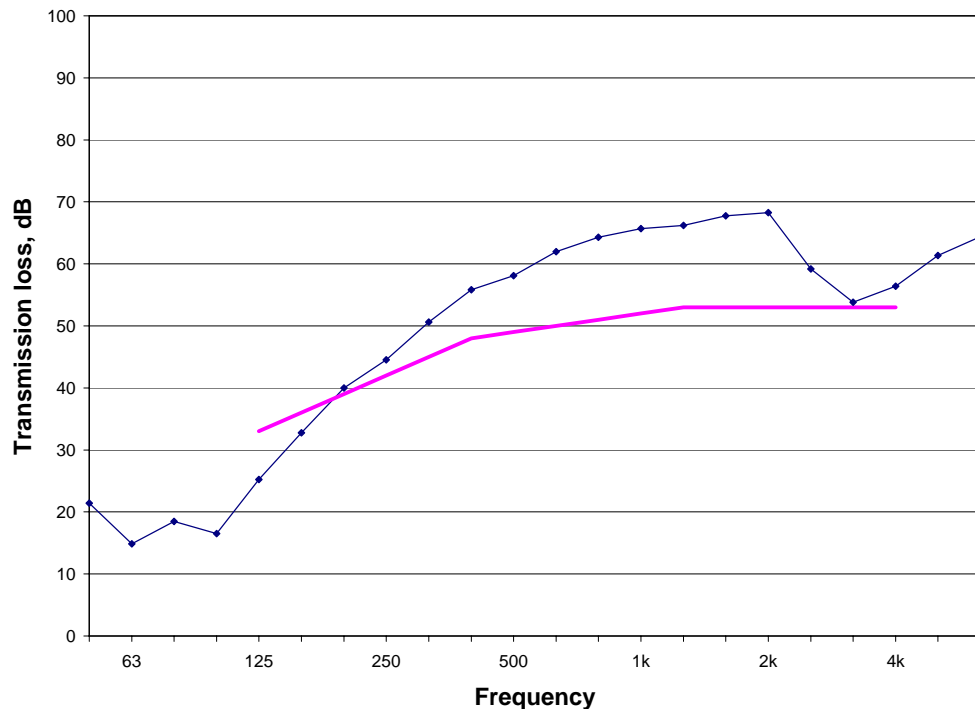
Element	Description:
1	single layer of 13 mm gypsum board
2	single layer of 13 mm gypsum board
3	90 mm steel studs at 406 mm on centre
4	90 mm of glass fibre insulation in cavity
5	single layer of 13 mm gypsum board
6	single layer of 13 mm gypsum board



TestID	TL-93-349
STC	49
50 Hz	21.4
63 Hz	14.9
80 Hz	18.5
100 Hz	16.5
125 Hz	25.2
160 Hz	32.8
200 Hz	40.0
250 Hz	44.6
315 Hz	50.6
400 Hz	55.8
500 Hz	58.1
630 Hz	62.0
800 Hz	64.3
1000 Hz	65.7
1250 Hz	66.2
1600 Hz	67.7
2000 Hz	68.2
2500 Hz	59.2
3150 Hz	53.8
4000 Hz	56.4
5000 Hz	61.3
6300 Hz	64.4

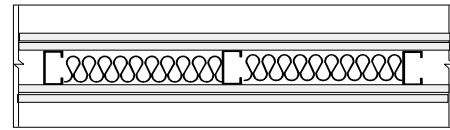
TL-93-349	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	gypsum board	stud	insulation	gypsum board	gypsum board
material	B	B	steel	G1	B	B
thickness mm	13	13	90	90	13	13
gauge			25			
spacing mm			406			
surface density kg/m <sup>2</sup>	8.4	8.3		1.1	8.2	8.3
linear density kg/m			0.6			
total weight kg	62.1	61.7	16.2	8.0	61.2	61.3
fastener spacing - edge mm	305	305			305	305
fastener spacing - field mm	305	610			610	305
fastener top track pattern	d				d	d
fastener base track pattern	a	a			a	a
stud attached to top track						
double header						
orientation	vertical	vertical			vertical	vertical

TL-93-349  
STC 49



2G13\_SS90(406)\_GFB90\_2G13

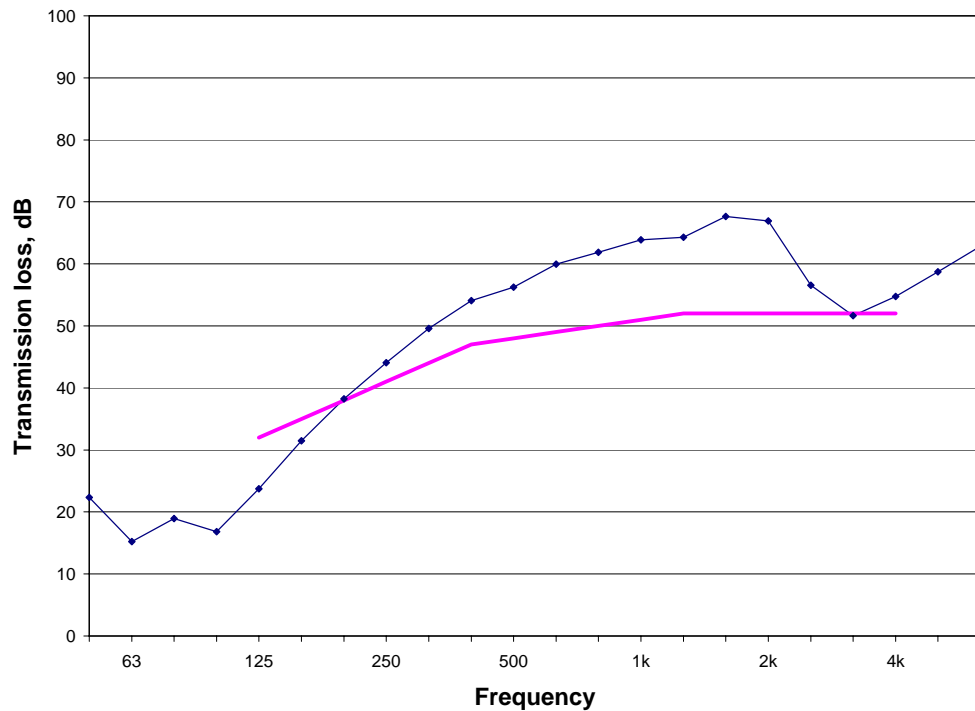
Element	Description:
1	single layer of 13 mm gypsum board
2	single layer of 13 mm gypsum board
3	90 mm steel studs at 406 mm on centre
4	90 mm of glass fibre insulation in cavity
5	single layer of 13 mm gypsum board
6	single layer of 13 mm gypsum board



TestID	TL-93-363
STC	48
50 Hz	22.3
63 Hz	15.2
80 Hz	18.9
100 Hz	16.8
125 Hz	23.7
160 Hz	31.5
200 Hz	38.2
250 Hz	44.1
315 Hz	49.6
400 Hz	54.1
500 Hz	56.3
630 Hz	60.0
800 Hz	61.9
1000 Hz	63.9
1250 Hz	64.3
1600 Hz	67.6
2000 Hz	66.9
2500 Hz	56.6
3150 Hz	51.7
4000 Hz	54.7
5000 Hz	58.7
6300 Hz	62.9

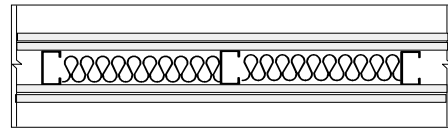
TL-93-363	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	gypsum board	stud	insulation	gypsum board	gypsum board
material	B	BL	steel	G1	BL	BL
thickness mm	13	13	90	90	13	13
gauge			25			
spacing mm			406			
surface density kg/m <sup>2</sup>	7.2	7.3		1.0	7.3	7.3
linear density kg/m			0.5			
total weight kg	53.6	54.3	14.1	7.8	53.9	54.3
fastener spacing - edge mm	305	305			305	305
fastener spacing - field mm	305	610			610	305
fastener top track pattern	d				d	d
fastener base track pattern	a	a			a	a
stud attached to top track						
double header						
orientation	vertical	vertical			vertical	vertical

TL-93-363  
STC 48



2G13\_SS90(406)\_GFB90\_2G13

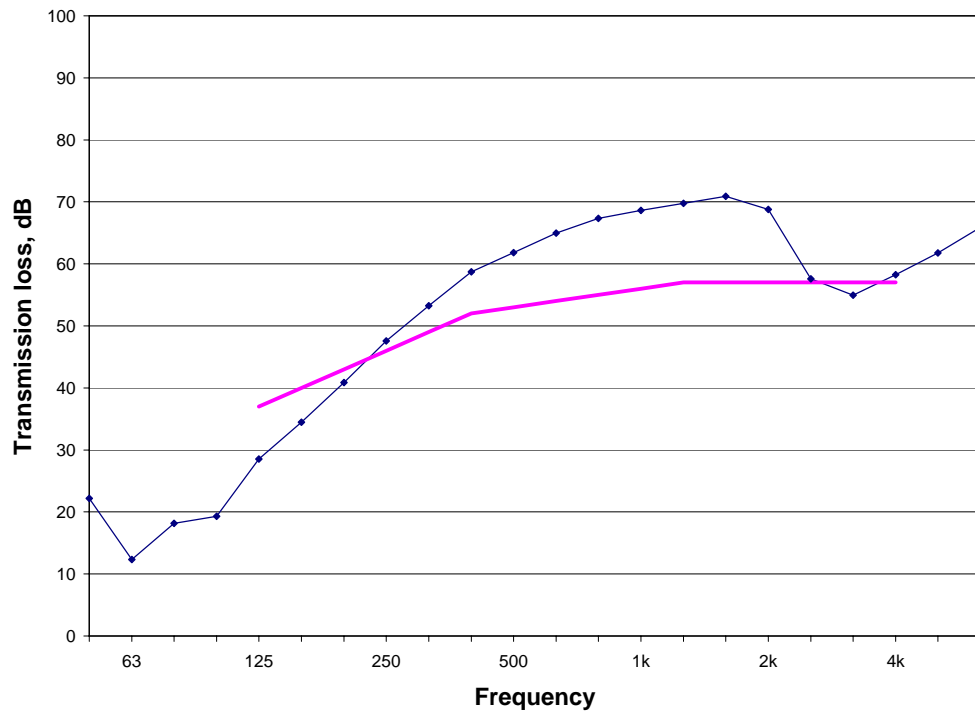
Element	Description:
1	single layer of 13 mm gypsum board
2	single layer of 13 mm gypsum board
3	90 mm steel studs at 406 mm on centre
4	90 mm of glass fibre insulation in cavity
5	single layer of 13 mm gypsum board
6	single layer of 13 mm gypsum board



TestID	TL-93-367
STC	53
50 Hz	22.2
63 Hz	12.3
80 Hz	18.1
100 Hz	19.3
125 Hz	28.5
160 Hz	34.4
200 Hz	40.9
250 Hz	47.6
315 Hz	53.2
400 Hz	58.7
500 Hz	61.8
630 Hz	65.0
800 Hz	67.3
1000 Hz	68.6
1250 Hz	69.7
1600 Hz	70.9
2000 Hz	68.8
2500 Hz	57.6
3150 Hz	55.0
4000 Hz	58.3
5000 Hz	61.8
6300 Hz	65.9

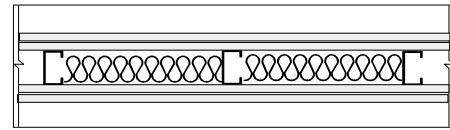
TL-93-367	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	gypsum board	stud	insulation	gypsum board	gypsum board
material	A	A	steel	G1	A	A
thickness mm	13	13	90	90	13	13
gauge			25			
spacing mm			406			
surface density kg/m <sup>2</sup>	7.9	8.0		1.0	7.9	7.9
linear density kg/m			0.5			
total weight kg	58.4	59.2	14.1	7.8	58.8	58.7
fastener spacing - edge mm	305	305			305	305
fastener spacing - field mm	305	610			610	305
fastener top track pattern	d				d	d
fastener base track pattern	a	a			a	a
stud attached to top track						
double header						
orientation	vertical	vertical			vertical	vertical

TL-93-367  
STC 53



2G13\_SS90(610)\_CFL90\_2G13

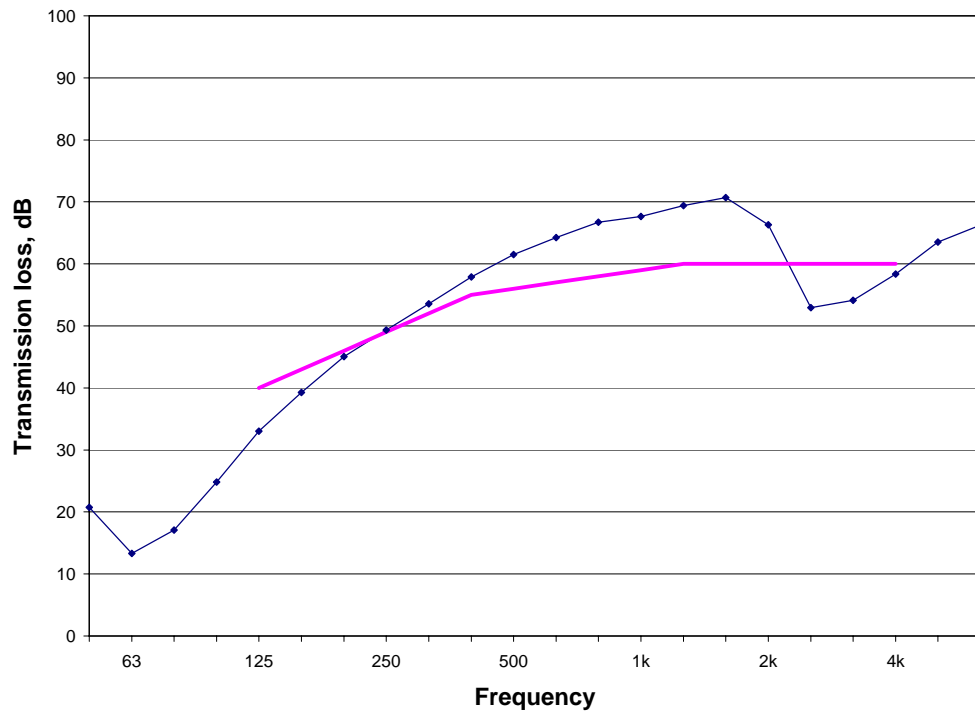
Element	Description:
1	single layer of 13 mm type X gypsum board
2	single layer of 13 mm type X gypsum board
3	90 mm steel studs at 610 mm on centre
4	90 mm of blown cellulose fibre insulation in cavity
5	single layer of 13 mm type X gypsum board
6	single layer of 13 mm type X gypsum board



TestID	TL-93-028
STC	56
50 Hz	20.7
63 Hz	13.3
80 Hz	17.1
100 Hz	24.8
125 Hz	33.0
160 Hz	39.2
200 Hz	45.1
250 Hz	49.4
315 Hz	53.5
400 Hz	57.9
500 Hz	61.5
630 Hz	64.2
800 Hz	66.7
1000 Hz	67.6
1250 Hz	69.4
1600 Hz	70.7
2000 Hz	66.3
2500 Hz	52.9
3150 Hz	54.1
4000 Hz	58.3
5000 Hz	63.5
6300 Hz	66.3

TL-93-028	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	gypsum board	stud	insulation	gypsum board	gypsum board
material	AX	AX	steel	C2	AX	AX
thickness mm	13	13	90	90	13	13
gauge			25			
spacing mm			610			
surface density kg/m <sup>2</sup>	10.0	10.0		3.4	9.9	10.0
linear density kg/m			0.5			
total weight kg	74.4	74.1	11.4	25.6	73.9	74.3
fastener spacing - edge mm	305	305			305	305
fastener spacing - field mm	305	610			610	305
fastener top track pattern	c	c			c	c
fastener base track pattern	c	c			c	c
stud attached to top track			yes			
double header						
orientation	vertical	vertical			vertical	vertical

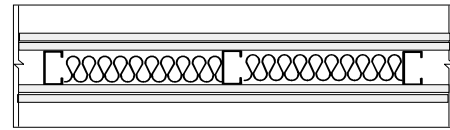
TL-93-028  
STC 56





2G13\_SS90(610)\_GFB90\_2G13

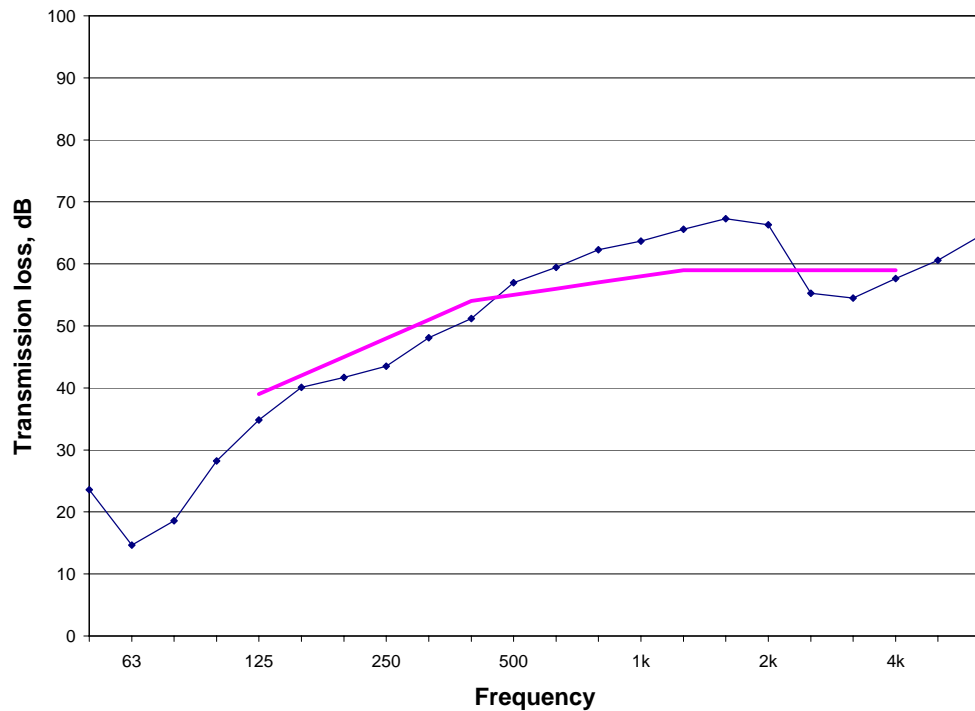
Element	Description:
1	single layer of 13 mm type X gypsum board
2	single layer of 13 mm type X gypsum board
3	90 mm steel studs at 610 mm on centre
4	90 mm of glass fibre insulation in cavity
5	single layer of 13 mm type X gypsum board
6	single layer of 13 mm type X gypsum board



TestID	TL-92-412
STC	55
50 Hz	23.6
63 Hz	14.7
80 Hz	18.6
100 Hz	28.2
125 Hz	34.8
160 Hz	40.1
200 Hz	41.7
250 Hz	43.5
315 Hz	48.1
400 Hz	51.2
500 Hz	57.0
630 Hz	59.5
800 Hz	62.3
1000 Hz	63.7
1250 Hz	65.6
1600 Hz	67.3
2000 Hz	66.3
2500 Hz	55.3
3150 Hz	54.5
4000 Hz	57.6
5000 Hz	60.6
6300 Hz	64.6

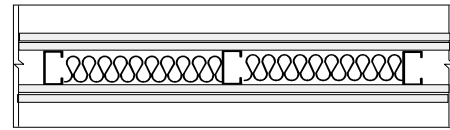
TL-92-412	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	gypsum board	stud	insulation	gypsum board	gypsum board
material	AX	AX	steel	G1	AX	AX
thickness mm	13	13	90	90	13	13
gauge			25			
spacing mm			610			
surface density kg/m <sup>2</sup>	10.0	9.9		1.2	9.9	9.9
linear density kg/m			0.6			
total weight kg	74.0	73.7	13.0	8.7	73.7	73.5
fastener spacing - edge mm	305	305			305	305
fastener spacing - field mm	305	610			610	305
fastener top track pattern	c	c			c	c
fastener base track pattern	c	c			c	c
stud attached to top track			yes			
double header						
orientation	vertical	vertical			vertical	vertical

TL-92-412  
STC 55



2G13\_SS90(610)\_GFB90\_2G13

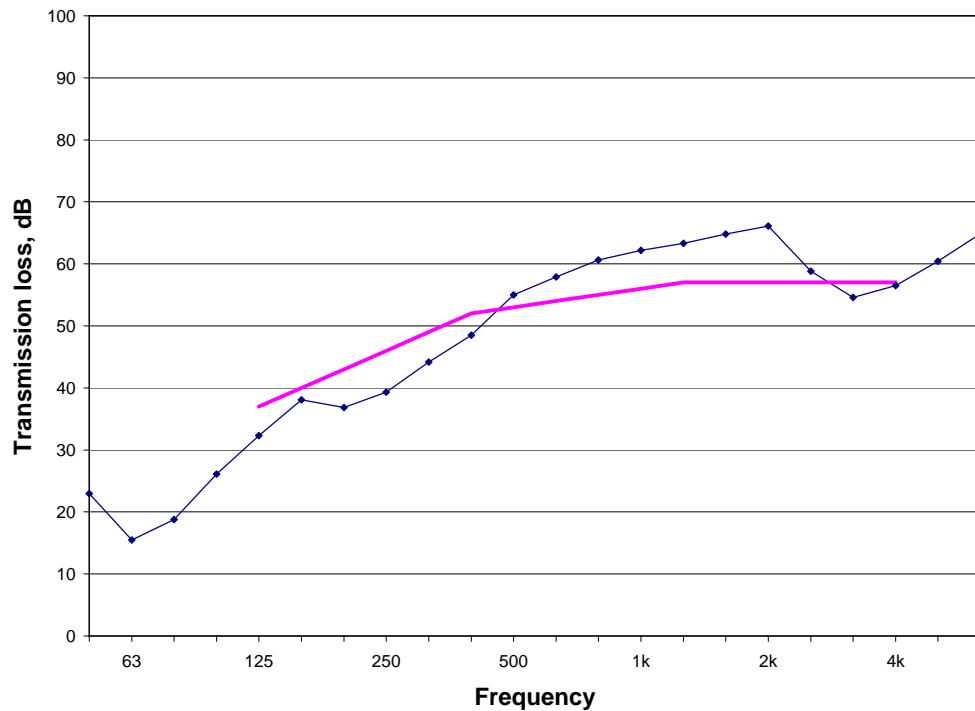
Element	Description:
1	single layer of 13 mm gypsum board
2	single layer of 13 mm gypsum board
3	90 mm steel studs at 610 mm on centre
4	90 mm of glass fibre insulation in cavity
5	single layer of 13 mm gypsum board
6	single layer of 13 mm gypsum board



TestID	TL-92-416
STC	53
50 Hz	23.0
63 Hz	15.5
80 Hz	18.8
100 Hz	26.1
125 Hz	32.3
160 Hz	38.1
200 Hz	36.9
250 Hz	39.3
315 Hz	44.2
400 Hz	48.5
500 Hz	55.0
630 Hz	57.9
800 Hz	60.7
1000 Hz	62.2
1250 Hz	63.3
1600 Hz	64.8
2000 Hz	66.1
2500 Hz	58.8
3150 Hz	54.6
4000 Hz	56.5
5000 Hz	60.4
6300 Hz	64.8

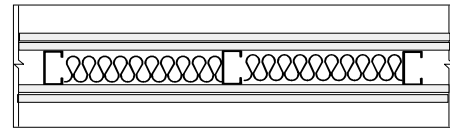
TL-92-416	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	gypsum board	stud	insulation	gypsum board	gypsum board
material	B	B	steel	G1	B	B
thickness mm	13	13	90	90	13	13
gauge			25			
spacing mm			610			
surface density kg/m <sup>2</sup>	8.2	8.3		1.2	8.2	8.2
linear density kg/m			0.6			
total weight kg	60.6	61.4	13.0	8.7	61.1	60.8
fastener spacing - edge mm	305	305			305	305
fastener spacing - field mm	305	610			610	305
fastener top track pattern	c	c			c	c
fastener base track pattern	c	c			c	c
stud attached to top track			yes			
double header						
orientation	vertical	vertical			vertical	vertical

TL-92-416  
STC 53



2G16\_SS65(406)\_MFB65\_2G16

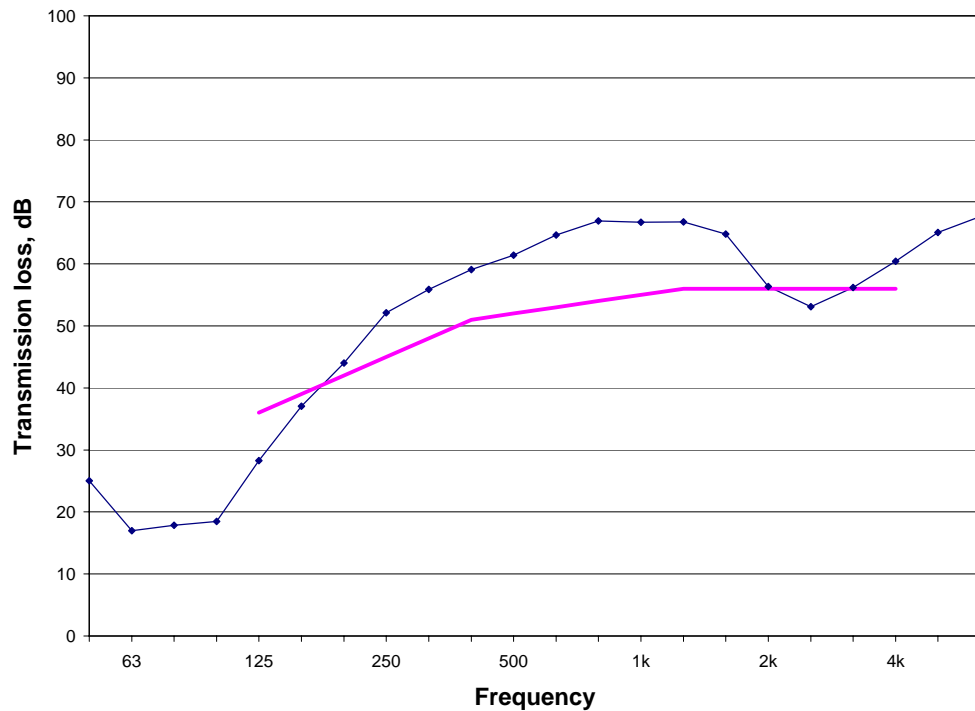
Element	Description:
1	single layer of 16 mm type X gypsum board
2	single layer of 16 mm type X gypsum board
3	65 mm steel studs at 406 mm on centre
4	65 mm of mineral fibre insulation in cavity
5	single layer of 16 mm type X gypsum board
6	single layer of 16 mm type X gypsum board



TestID	TL-93-063
STC	52
50 Hz	25.0
63 Hz	17.0
80 Hz	17.9
100 Hz	18.5
125 Hz	28.3
160 Hz	37.1
200 Hz	44.0
250 Hz	52.1
315 Hz	55.9
400 Hz	59.1
500 Hz	61.4
630 Hz	64.7
800 Hz	66.9
1000 Hz	66.7
1250 Hz	66.7
1600 Hz	64.8
2000 Hz	56.3
2500 Hz	53.1
3150 Hz	56.2
4000 Hz	60.4
5000 Hz	65.1
6300 Hz	67.6

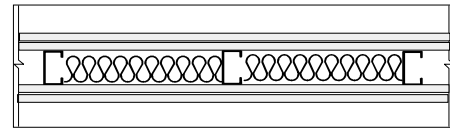
TL-93-063	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	gypsum board	stud	insulation	gypsum board	gypsum board
material	CX	CX	steel	M1	CX	CX
thickness mm	16	16	65	65	16	16
gauge			25			
spacing mm			406			
surface density kg/m <sup>2</sup>	11.0	11.0		2.3	10.9	10.9
linear density kg/m			0.5			
total weight kg	81.4	81.5	13.4	17.4	81.1	81.2
fastener spacing - edge mm	305	305			305	305
fastener spacing - field mm	305	610			610	305
fastener top track pattern	c	c			c	c
fastener base track pattern	c	c			c	c
stud attached to top track			yes			
double header						
orientation	vertical	vertical			vertical	vertical

TL-93-063  
STC 52



2G16\_SS65(610)\_GFB65\_2G16

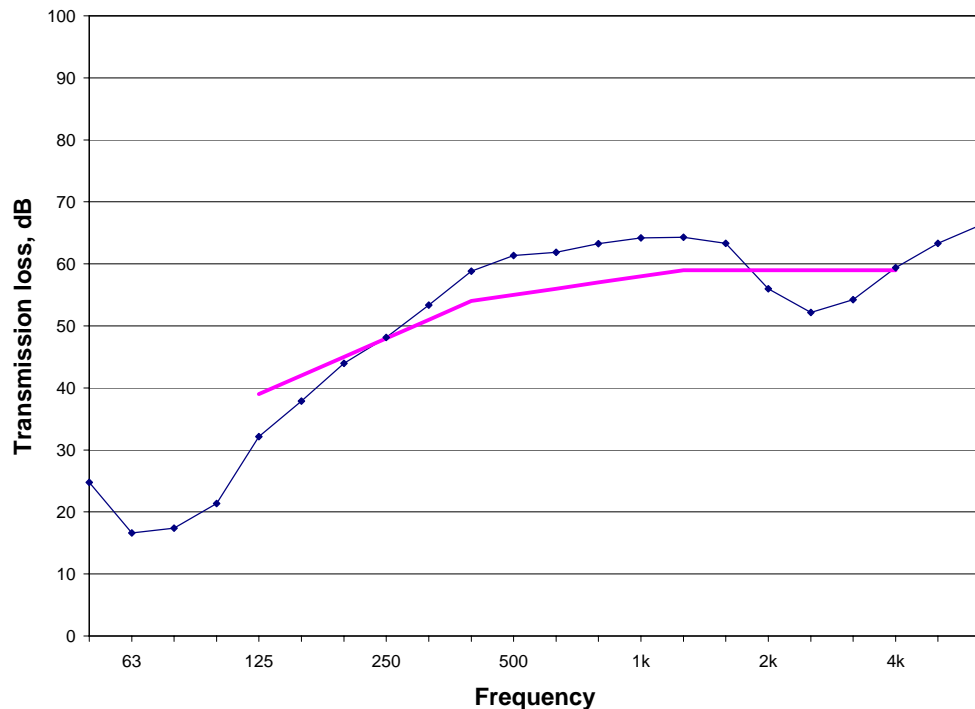
Element	Description:
1	single layer of 16 mm type X gypsum board
2	single layer of 16 mm type X gypsum board
3	65 mm steel studs at 610 mm on centre
4	65 mm of glass fibre insulation in cavity
5	single layer of 16 mm type X gypsum board
6	single layer of 16 mm type X gypsum board



TestID	TL-93-037
STC	55
50 Hz	24.7
63 Hz	16.6
80 Hz	17.4
100 Hz	21.3
125 Hz	32.2
160 Hz	37.9
200 Hz	44.0
250 Hz	48.1
315 Hz	53.3
400 Hz	58.8
500 Hz	61.3
630 Hz	61.8
800 Hz	63.3
1000 Hz	64.2
1250 Hz	64.3
1600 Hz	63.3
2000 Hz	56.0
2500 Hz	52.1
3150 Hz	54.2
4000 Hz	59.4
5000 Hz	63.3
6300 Hz	66.3

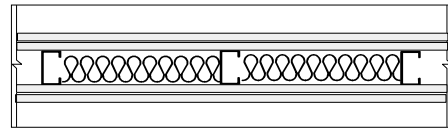
TL-93-037	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	gypsum board	stud	insulation	gypsum board	gypsum board
material	CX	CX	steel	G1	CX	CX
thickness mm	16	16	65	65	16	16
gauge			25			
spacing mm			610			
surface density kg/m <sup>2</sup>	10.9	11.1		0.8	11.0	10.9
linear density kg/m			0.5			
total weight kg	81.2	82.2	9.8	5.9	81.4	81.2
fastener spacing - edge mm	305	305			305	305
fastener spacing - field mm	305	610			610	305
fastener top track pattern	c	c			c	c
fastener base track pattern	c	c			c	c
stud attached to top track			yes			
double header						
orientation	vertical	vertical			vertical	vertical

TL-93-037  
STC 55



2G16\_SS90(406)\_CFL90\_2G16

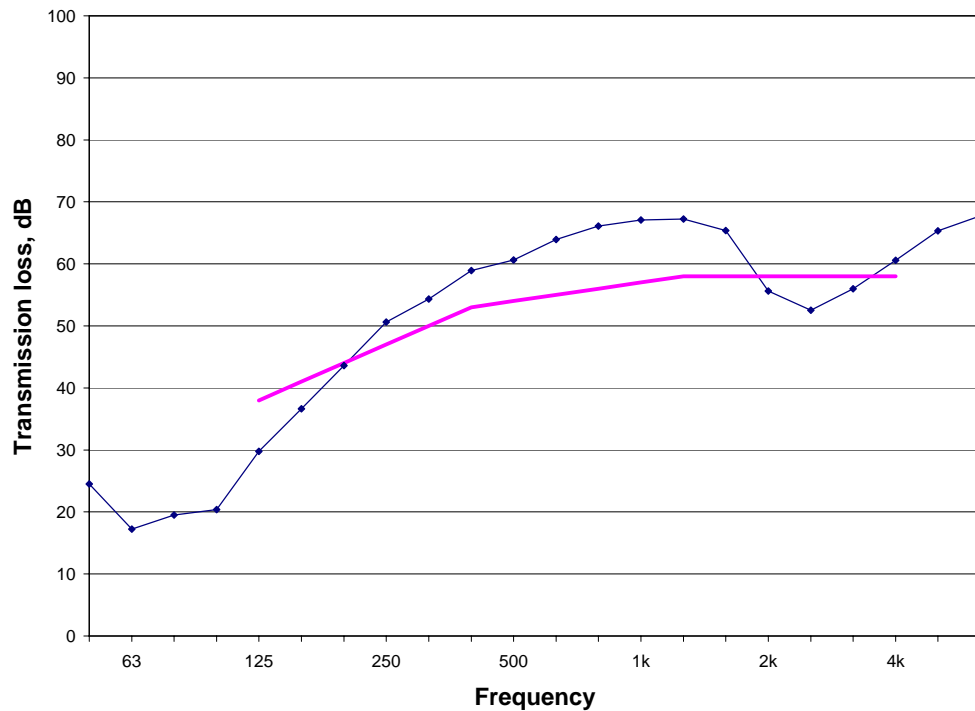
Element	Description:
1	single layer of 13 mm type X gypsum board
2	single layer of 16 mm type X gypsum board
3	90 mm steel studs at 406 mm on centre
4	90 mm of blown cellulose fibre insulation in cavity
5	single layer of 16 mm type X gypsum board
6	single layer of 16 mm type X gypsum board



TestID	TL-92-435
STC	54
50 Hz	24.5
63 Hz	17.2
80 Hz	19.5
100 Hz	20.4
125 Hz	29.8
160 Hz	36.7
200 Hz	43.6
250 Hz	50.6
315 Hz	54.4
400 Hz	58.9
500 Hz	60.6
630 Hz	63.9
800 Hz	66.1
1000 Hz	67.1
1250 Hz	67.2
1600 Hz	65.4
2000 Hz	55.6
2500 Hz	52.5
3150 Hz	56.0
4000 Hz	60.6
5000 Hz	65.3
6300 Hz	67.7

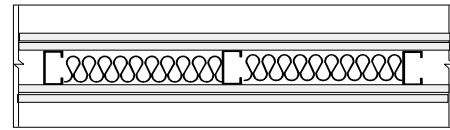
TL-92-435	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	gypsum board	stud	insulation	gypsum board	gypsum board
material	CX	CX	steel	C2	CX	CX
thickness mm	13	16	90	90	16	16
gauge			25			
spacing mm			406			
surface density kg/m <sup>2</sup>	10.9	10.9		4.1	11.0	11.0
linear density kg/m			0.6			
total weight kg	81.1	81.2	16.4	30.7	81.5	81.4
fastener spacing - edge mm	305	305			305	305
fastener spacing - field mm	305	610			610	305
fastener top track pattern	c	c			c	c
fastener base track pattern	c	c			c	c
stud attached to top track			yes			
double header						
orientation	vertical	vertical			vertical	vertical

TL-92-435  
STC 54



2G16\_SS90(406)\_CFL90\_2G16

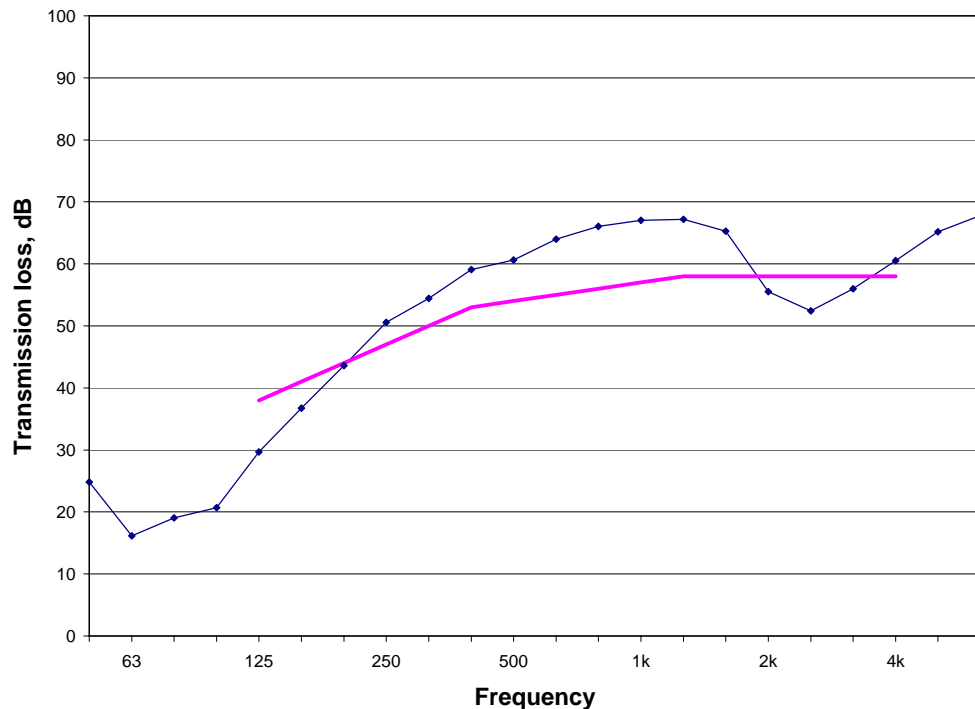
Element	Description:
1	single layer of 13 mm type X gypsum board
2	single layer of 16 mm type X gypsum board
3	90 mm steel studs at 406 mm on centre
4	90 mm of blown cellulose fibre insulation in cavity
5	single layer of 16 mm type X gypsum board
6	single layer of 16 mm type X gypsum board



TestID	TL-92-436
STC	54
50 Hz	24.8
63 Hz	16.2
80 Hz	19.1
100 Hz	20.7
125 Hz	29.7
160 Hz	36.8
200 Hz	43.6
250 Hz	50.6
315 Hz	54.4
400 Hz	59.1
500 Hz	60.6
630 Hz	64.0
800 Hz	66.0
1000 Hz	67.0
1250 Hz	67.2
1600 Hz	65.3
2000 Hz	55.5
2500 Hz	52.4
3150 Hz	56.0
4000 Hz	60.5
5000 Hz	65.2
6300 Hz	67.8

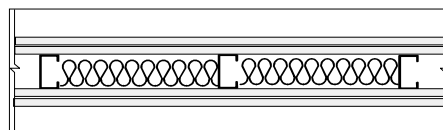
TL-92-436	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	gypsum board	stud	insulation	gypsum board	gypsum board
material	CX	CX	steel	C2	CX	CX
thickness mm	13	16	90	90	16	16
gauge			25			
spacing mm			406			
surface density kg/m <sup>2</sup>	10.9	10.9		4.1	11.0	11.0
linear density kg/m			0.6			
total weight kg	81.1	81.2	16.4	30.7	81.5	81.4
fastener spacing - edge mm	305	305			305	305
fastener spacing - field mm	305	610			610	305
fastener top track pattern	c	c			c	c
fastener base track pattern	c	c			c	c
stud attached to top track			yes			
double header						
orientation	vertical	vertical			vertical	vertical

TL-92-436  
STC 54



2G16\_SS90(406)\_CFS40\_2G16

Element	Description:
1	single layer of 16 mm type X gypsum board
2	single layer of 16 mm type X gypsum board
3	90 mm steel studs at 406 mm on centre
4	40 mm of sprayed cellulose fibre insulation in cavity
5	single layer of 16 mm type X gypsum board
6	single layer of 16 mm type X gypsum board

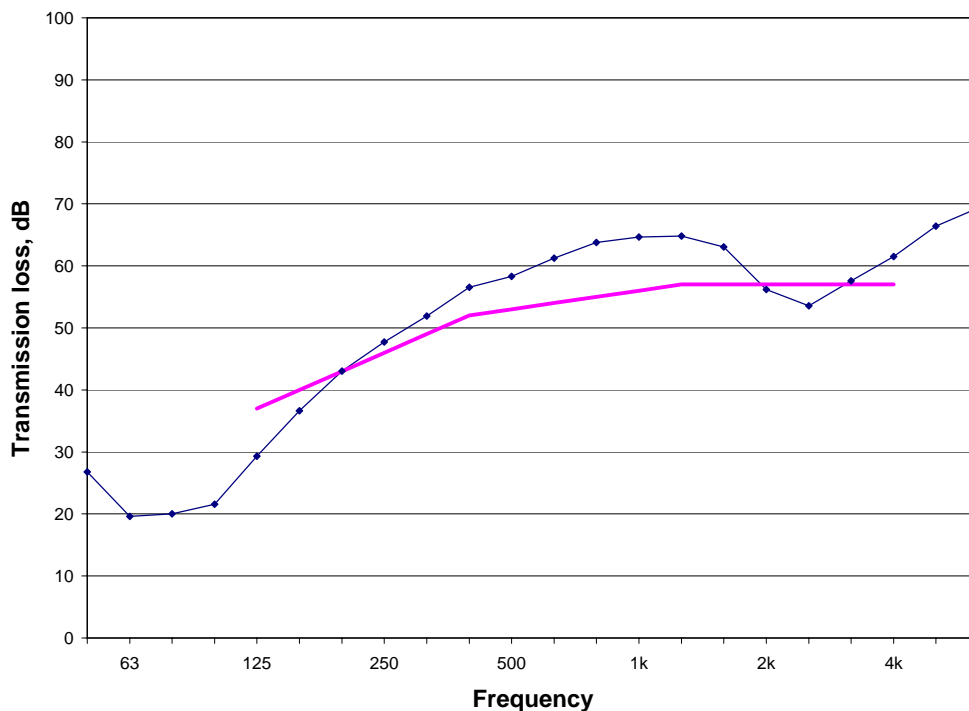


TestID	TL-92-441
STC	53
50 Hz	26.8
63 Hz	19.6
80 Hz	20.0
100 Hz	21.6
125 Hz	29.3
160 Hz	36.6
200 Hz	43.0
250 Hz	47.7
315 Hz	51.9
400 Hz	56.6
500 Hz	58.3
630 Hz	61.3
800 Hz	63.8
1000 Hz	64.7
1250 Hz	64.8
1600 Hz	63.1
2000 Hz	56.2
2500 Hz	53.6
3150 Hz	57.6
4000 Hz	61.5
5000 Hz	66.4
6300 Hz	69.3

TL-92-441

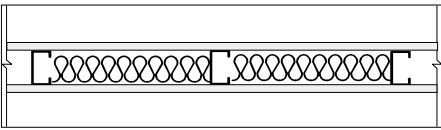
	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	gypsum board	stud	insulation	gypsum board	gypsum board
material	CX	CX	steel	C1	CX	CX
thickness mm	16	16	90	40	16	16
gauge			25			
spacing mm			406			
surface density kg/m <sup>2</sup>	11.0	10.9		2.1	10.8	10.9
linear density kg/m			0.6			
total weight kg	81.5	81.2	16.0	15.5	80.5	81.0
fastener spacing - edge mm	305	305			305	305
fastener spacing - field mm	305	610			610	305
fastener top track pattern	c	c			c	c
fastener base track pattern	c	c			c	c
stud attached to top track			yes			
double header						
orientation	vertical	vertical			vertical	vertical

TL-92-441  
STC 53



Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm steel studs at 610 mm on centre
3	90 mm of blown cellulose fibre insulation in cavity
4	single layer of 16 mm type X gypsum board

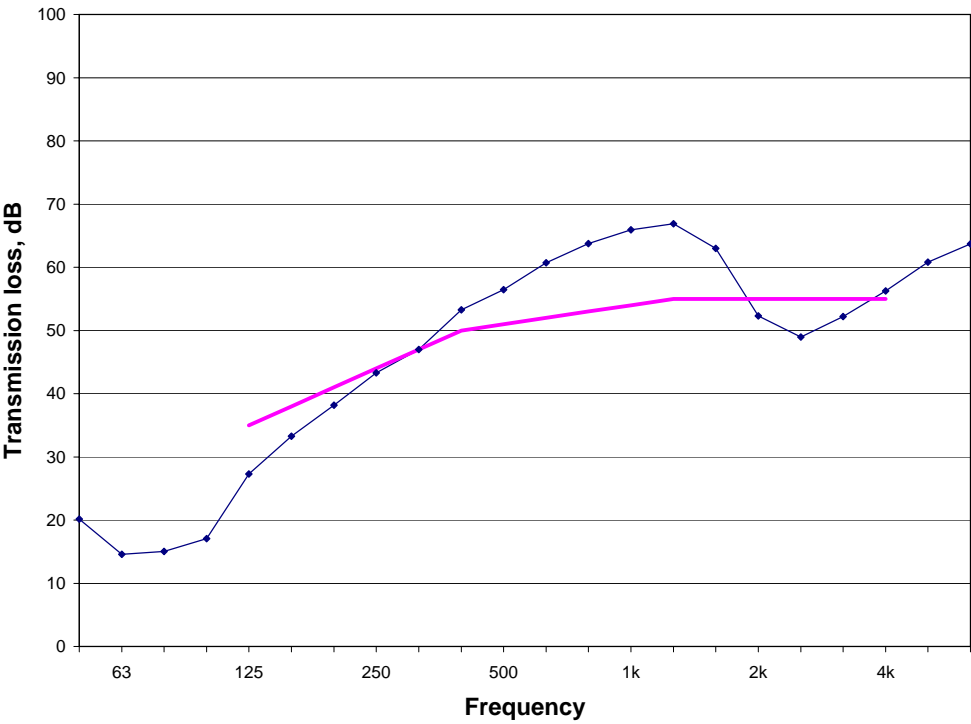
G16\_SS90(610)\_CFS90\_G16



TestID	TL-92-387
STC	51
50 Hz	20.1
63 Hz	14.6
80 Hz	15.1
100 Hz	17.0
125 Hz	27.3
160 Hz	33.3
200 Hz	38.2
250 Hz	43.3
315 Hz	47.0
400 Hz	53.3
500 Hz	56.5
630 Hz	60.7
800 Hz	63.7
1000 Hz	65.9
1250 Hz	66.9
1600 Hz	63.0
2000 Hz	52.3
2500 Hz	49.0
3150 Hz	52.2
4000 Hz	56.3
5000 Hz	60.8
6300 Hz	63.7

TL-92-387	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	CX	steel	C2	CX
thickness mm	16	90	90	16
gauge		25		
spacing mm		610		
surface density kg/m <sup>2</sup>	10.9		4.0	11.4
linear density kg/m		0.6		
total weight kg	80.8	13.2	29.8	84.4
fastener spacing - edge mm	305			305
fastener spacing - field mm	305			305
fastener top track pattern	a			a
fastener base track pattern	a			a
stud attached to top track		yes		
double header				
orientation	vertical			vertical

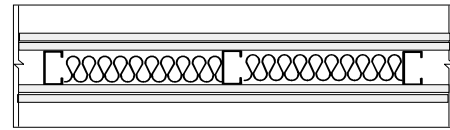
TL-92-387  
STC 51





2G16\_SS90(406)\_CFS90\_2G16

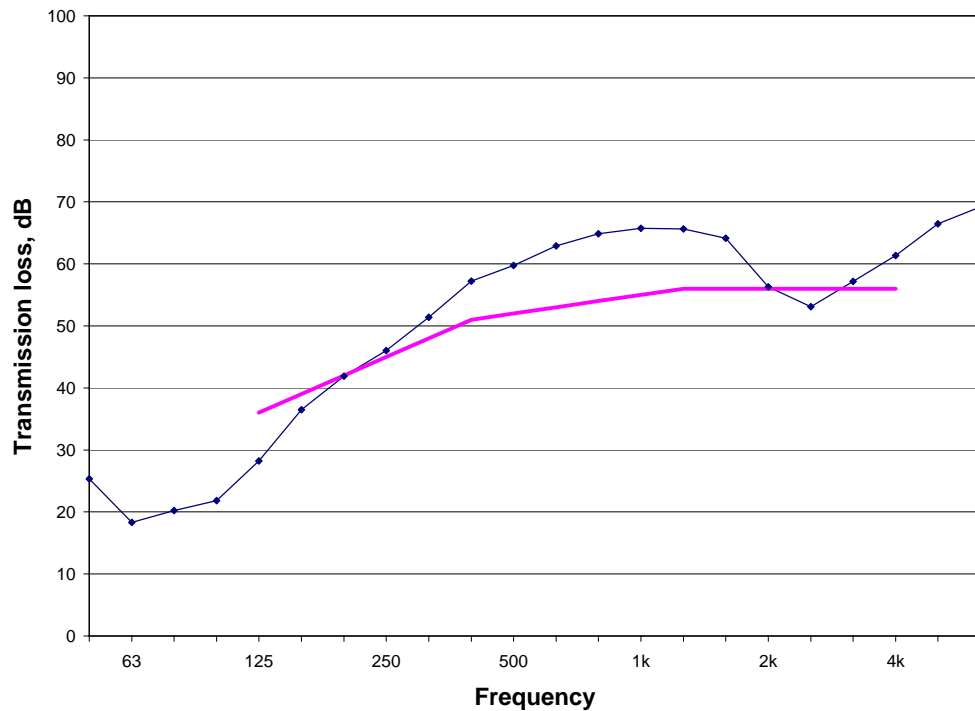
Element	Description:
1	single layer of 16 mm type X gypsum board
2	single layer of 16 mm type X gypsum board
3	90 mm steel studs at 406 mm on centre
4	90 mm of sprayed cellulose fibre insulation in cavity
5	single layer of 16 mm type X gypsum board
6	single layer of 16 mm type X gypsum board



TestID	TL-93-051
STC	52
50 Hz	25.3
63 Hz	18.3
80 Hz	20.2
100 Hz	21.8
125 Hz	28.2
160 Hz	36.5
200 Hz	41.9
250 Hz	46.0
315 Hz	51.4
400 Hz	57.2
500 Hz	59.8
630 Hz	62.9
800 Hz	64.9
1000 Hz	65.8
1250 Hz	65.6
1600 Hz	64.1
2000 Hz	56.3
2500 Hz	53.1
3150 Hz	57.2
4000 Hz	61.4
5000 Hz	66.5
6300 Hz	69.2

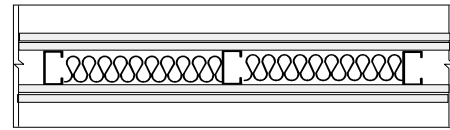
TL-93-051	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	gypsum board	stud	insulation	gypsum board	gypsum board
material	CX	CX	steel	C1	CX	CX
thickness mm	16	16	90	90	16	16
gauge			25			
spacing mm			406			
surface density kg/m <sup>2</sup>	10.8	11.1		4.1	10.9	10.9
linear density kg/m			0.6			
total weight kg	80.3	82.2	16.0	30.5	81.0	81.0
fastener spacing - edge mm	305	305			305	305
fastener spacing - field mm	305	610			610	305
fastener top track pattern	c	c			c	c
fastener base track pattern	c	c			c	c
stud attached to top track			yes			
double header						
orientation	vertical	vertical			vertical	vertical

TL-93-051  
STC 52



2G16\_SS90(406)\_GFB90\_2G16

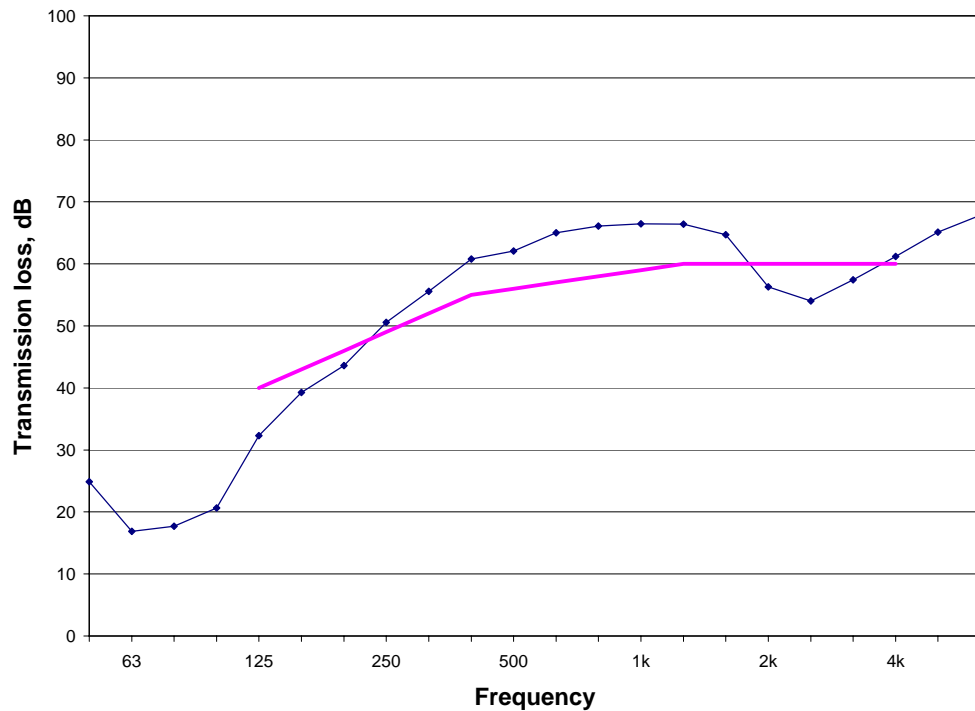
Element	Description:
1	single layer of 16 mm type X gypsum board
2	single layer of 16 mm type X gypsum board
3	90 mm steel studs at 406 mm on centre
4	90 mm of glass fibre insulation in cavity
5	single layer of 16 mm type X gypsum board
6	single layer of 16 mm type X gypsum board



TestID	TL-92-421
STC	56
50 Hz	24.9
63 Hz	16.9
80 Hz	17.7
100 Hz	20.6
125 Hz	32.3
160 Hz	39.3
200 Hz	43.6
250 Hz	50.6
315 Hz	55.6
400 Hz	60.8
500 Hz	62.1
630 Hz	65.0
800 Hz	66.1
1000 Hz	66.5
1250 Hz	66.4
1600 Hz	64.7
2000 Hz	56.3
2500 Hz	54.0
3150 Hz	57.4
4000 Hz	61.2
5000 Hz	65.1
6300 Hz	67.9

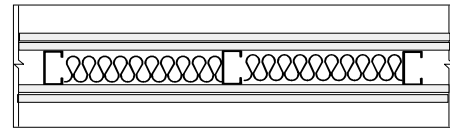
TL-92-421	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	gypsum board	stud	insulation	gypsum board	gypsum board
material	CX	CX	steel	G1	CX	CX
thickness mm	16	16	90	90	16	16
gauge			25			
spacing mm			406			
surface density kg/m <sup>2</sup>	11.0	10.9		1.1	10.9	11.0
linear density kg/m			0.6			
total weight kg	81.7	80.7	15.8	8.2	81.3	81.4
fastener spacing - edge mm	305	305			305	305
fastener spacing - field mm	305	610			610	305
fastener top track pattern	c	c			c	c
fastener base track pattern	c	c			c	c
stud attached to top track			yes			
double header						
orientation	vertical	vertical			vertical	vertical

TL-92-421  
STC 56



2G16\_SS90(406)\_GFB90\_2G16

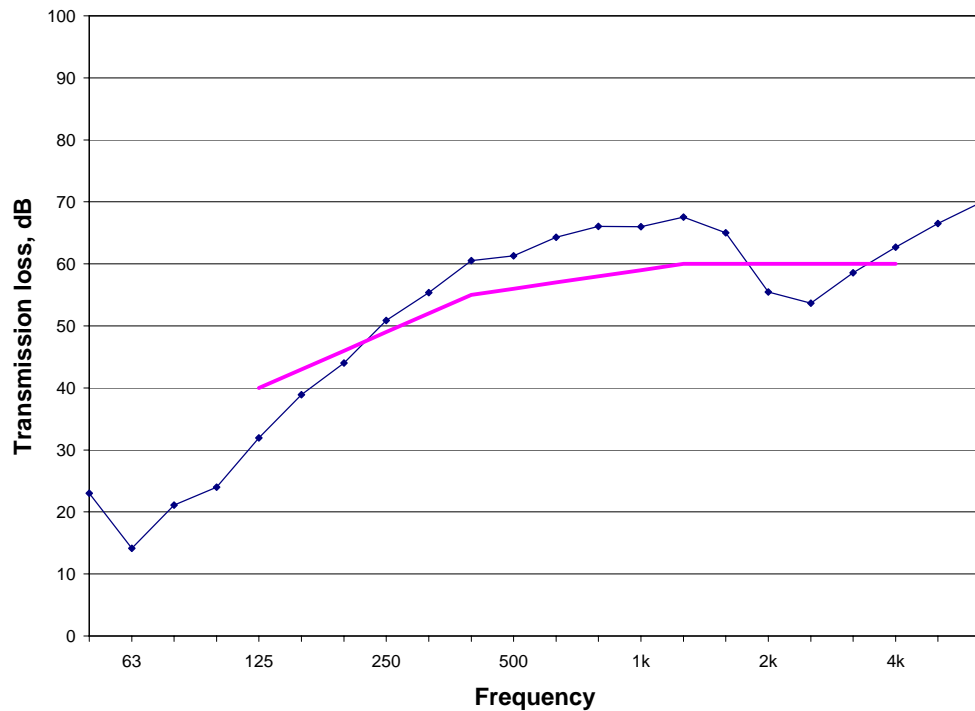
Element	Description:
1	single layer of 16 mm type X gypsum board
2	single layer of 16 mm type X gypsum board
3	90 mm steel studs at 406 mm on centre
4	90 mm of glass fibre insulation in cavity
5	single layer of 16 mm type X gypsum board
6	single layer of 16 mm type X gypsum board



TestID	TL-93-351
STC	56
50 Hz	23.0
63 Hz	14.1
80 Hz	21.1
100 Hz	24.0
125 Hz	32.0
160 Hz	38.9
200 Hz	44.0
250 Hz	50.9
315 Hz	55.3
400 Hz	60.5
500 Hz	61.3
630 Hz	64.3
800 Hz	66.0
1000 Hz	66.0
1250 Hz	67.5
1600 Hz	65.0
2000 Hz	55.5
2500 Hz	53.7
3150 Hz	58.6
4000 Hz	62.7
5000 Hz	66.5
6300 Hz	69.8

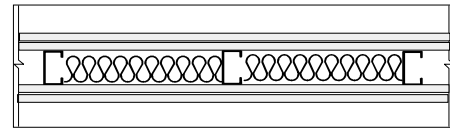
TL-93-351	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	gypsum board	stud	insulation	gypsum board	gypsum board
material	CX	CX	steel	G1	CX	CX
thickness mm	16	16	90	90	16	16
gauge			25			
spacing mm			406			
surface density kg/m <sup>2</sup>	11.6	11.6		1.1	11.6	11.4
linear density kg/m			0.6			
total weight kg	86.1	85.9	16.2	8.0	86.1	85.0
fastener spacing - edge mm	305	305			305	305
fastener spacing - field mm	305	610			610	305
fastener top track pattern	d				d	d
fastener base track pattern	a	a			a	a
stud attached to top track						
double header						
orientation	vertical	vertical			vertical	vertical

TL-93-351  
STC 56



2G16\_SS90(406)\_MFB40\_2G16

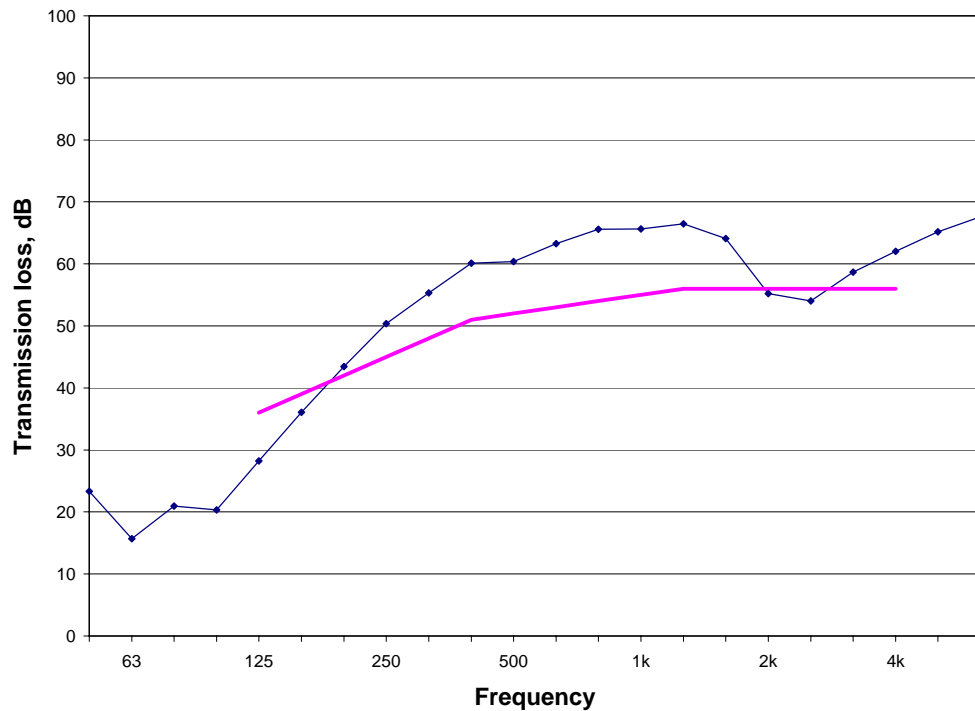
Element	Description:
1	single layer of 16 mm type X gypsum board
2	single layer of 16 mm type X gypsum board
3	90 mm steel studs at 406 mm on centre
4	40 mm of mineral fibre insulation in cavity
5	single layer of 16 mm type X gypsum board
6	single layer of 16 mm type X gypsum board



TestID	TL-93-342
STC	52
50 Hz	23.3
63 Hz	15.7
80 Hz	21.0
100 Hz	20.3
125 Hz	28.2
160 Hz	36.1
200 Hz	43.5
250 Hz	50.3
315 Hz	55.3
400 Hz	60.1
500 Hz	60.4
630 Hz	63.3
800 Hz	65.6
1000 Hz	65.7
1250 Hz	66.5
1600 Hz	64.1
2000 Hz	55.2
2500 Hz	54.0
3150 Hz	58.7
4000 Hz	62.0
5000 Hz	65.2
6300 Hz	67.6

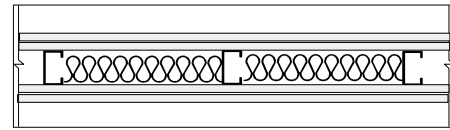
TL-93-342	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	gypsum board	stud	insulation	gypsum board	gypsum board
material	CX	CX	steel	M2	CX	CX
thickness mm	16	16	90	40	16	16
gauge			25			
spacing mm			406			
surface density kg/m <sup>2</sup>	11.5	11.5		2.1	11.6	11.5
linear density kg/m			0.6			
total weight kg	85.7	85.7	16.2	15.2	85.9	85.1
fastener spacing - edge mm	305	305			305	305
fastener spacing - field mm	305	610			610	305
fastener top track pattern	d				d	d
fastener base track pattern	a	a			a	a
stud attached to top track						
double header						
orientation	vertical	vertical			vertical	vertical

TL-93-342  
STC 52



2G16\_SS90(406)\_MFB75\_2G16

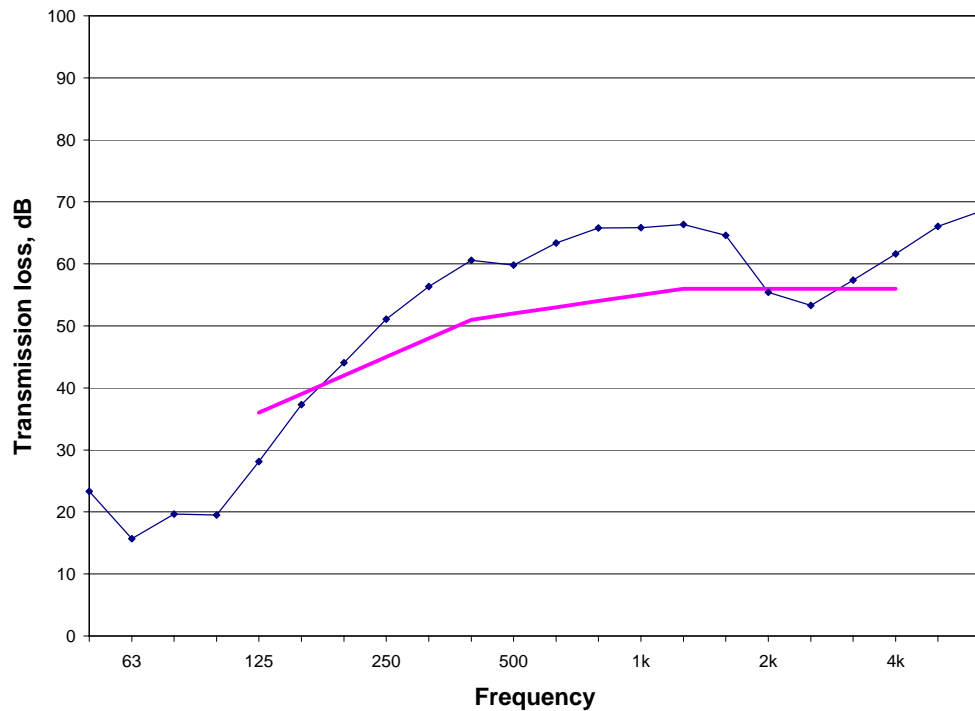
Element	Description:
1	single layer of 16 mm type X gypsum board
2	single layer of 16 mm type X gypsum board
3	90 mm steel studs at 406 mm on centre
4	75 mm of mineral fibre insulation in cavity
5	single layer of 16 mm type X gypsum board
6	single layer of 16 mm type X gypsum board



TestID	TL-93-077
STC	52
50 Hz	23.3
63 Hz	15.7
80 Hz	19.7
100 Hz	19.5
125 Hz	28.1
160 Hz	37.3
200 Hz	44.1
250 Hz	51.1
315 Hz	56.3
400 Hz	60.6
500 Hz	59.8
630 Hz	63.4
800 Hz	65.8
1000 Hz	65.8
1250 Hz	66.3
1600 Hz	64.6
2000 Hz	55.4
2500 Hz	53.3
3150 Hz	57.4
4000 Hz	61.6
5000 Hz	66.1
6300 Hz	68.5

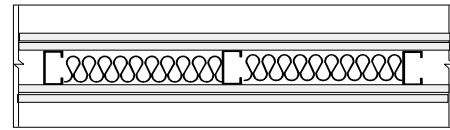
TL-93-077	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	gypsum board	stud	insulation	gypsum board	gypsum board
material	CX	CX	steel	M2	CX	CX
thickness mm	16	16	90	75	16	16
gauge			25			
spacing mm			406			
surface density kg/m <sup>2</sup>	10.9	10.9		3.3	11.0	11.0
linear density kg/m			0.6			
total weight kg	81.3	81.2	16.5	24.2	81.7	81.4
fastener spacing - edge mm	305	305			305	305
fastener spacing - field mm	305	610			610	305
fastener top track pattern	c	c			c	c
fastener base track pattern	c	c			c	c
stud attached to top track			yes			
double header						
orientation	vertical	vertical			vertical	vertical

TL-93-077  
STC 52



2G16\_SS90(406)\_MFB75\_2G16

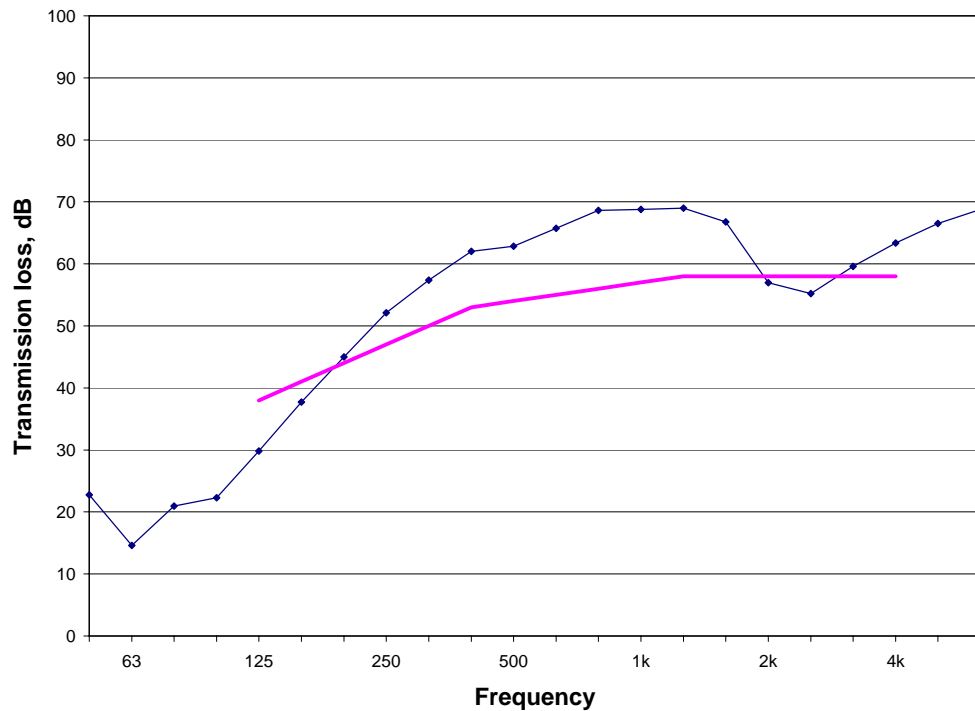
Element	Description:
1	single layer of 16 mm type X gypsum board
2	single layer of 16 mm type X gypsum board
3	90 mm steel studs at 406 mm on centre
4	75 mm of mineral fibre insulation in cavity
5	single layer of 16 mm type X gypsum board
6	single layer of 16 mm type X gypsum board



TestID	TL-93-334
STC	54
50 Hz	22.8
63 Hz	14.6
80 Hz	20.9
100 Hz	22.3
125 Hz	29.8
160 Hz	37.7
200 Hz	45.0
250 Hz	52.1
315 Hz	57.4
400 Hz	62.0
500 Hz	62.8
630 Hz	65.7
800 Hz	68.6
1000 Hz	68.8
1250 Hz	69.0
1600 Hz	66.8
2000 Hz	57.0
2500 Hz	55.2
3150 Hz	59.6
4000 Hz	63.4
5000 Hz	66.5
6300 Hz	68.8

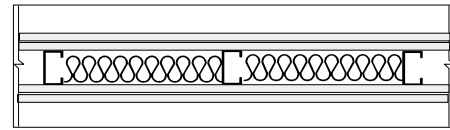
TL-93-334	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	gypsum board	stud	insulation	gypsum board	gypsum board
material	CX	CX	steel	M2	CX	CX
thickness mm	16	16	90	75	16	16
gauge			25			
spacing mm			406			
surface density kg/m <sup>2</sup>	11.5	11.5		3.7	11.4	11.3
linear density kg/m			0.6			
total weight kg	85.6	85.2	16.2	26.3	84.8	84.2
fastener spacing - edge mm	305	305			305	305
fastener spacing - field mm	305	610			610	305
fastener top track pattern	d				d	d
fastener base track pattern	a	a			a	a
stud attached to top track						
double header						
orientation	vertical	vertical			vertical	vertical

TL-93-334  
STC 54



2G16\_SS90(406)\_MFB90\_2G16

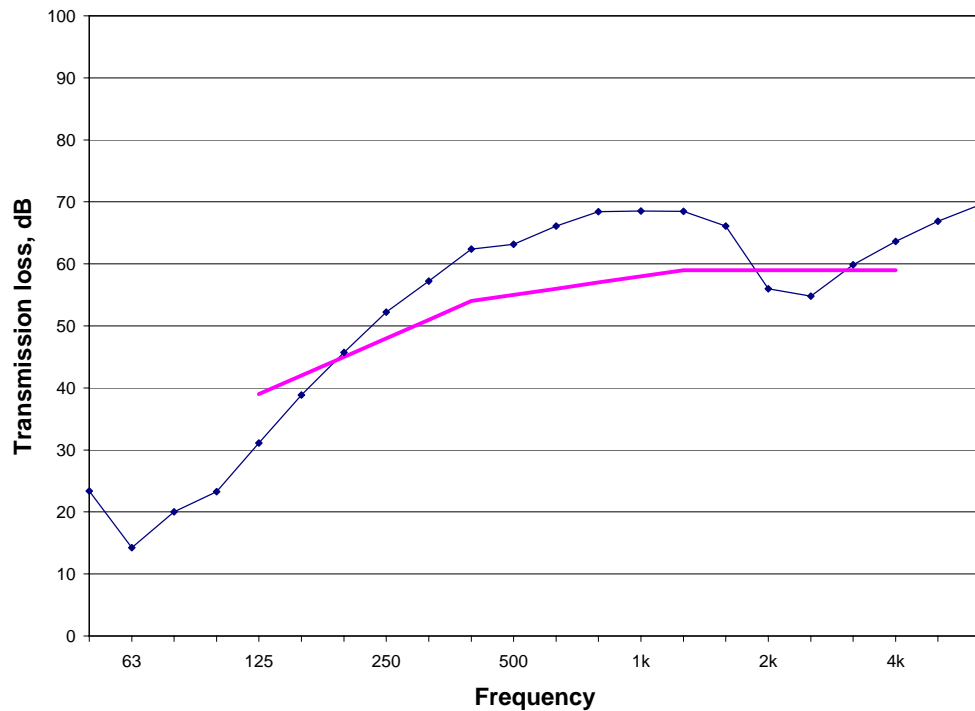
Element	Description:
1	single layer of 16 mm type X gypsum board
2	single layer of 16 mm type X gypsum board
3	90 mm steel studs at 406 mm on centre
4	90 mm of mineral fibre insulation in cavity
5	single layer of 16 mm type X gypsum board
6	single layer of 16 mm type X gypsum board



TestID	TL-93-331
STC	55
50 Hz	23.4
63 Hz	14.3
80 Hz	20.0
100 Hz	23.3
125 Hz	31.1
160 Hz	38.8
200 Hz	45.7
250 Hz	52.2
315 Hz	57.2
400 Hz	62.4
500 Hz	63.2
630 Hz	66.1
800 Hz	68.4
1000 Hz	68.5
1250 Hz	68.5
1600 Hz	66.1
2000 Hz	56.0
2500 Hz	54.8
3150 Hz	59.8
4000 Hz	63.6
5000 Hz	66.9
6300 Hz	69.5

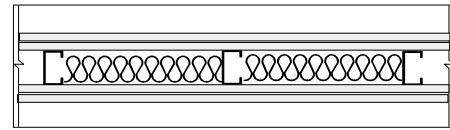
TL-93-331	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	gypsum board	stud	insulation	gypsum board	gypsum board
material	CX	CX	steel	M1	CX	CX
thickness mm	16	16	90	90	16	16
gauge			25			
spacing mm			406			
surface density kg/m <sup>2</sup>	11.5	11.5		3.2	11.4	11.3
linear density kg/m			0.6			
total weight kg	85.6	85.4	16.2	22.7	84.8	84.2
fastener spacing - edge mm	305	305			305	305
fastener spacing - field mm	305	610			610	305
fastener top track pattern	d				d	d
fastener base track pattern	a	a			a	a
stud attached to top track						
double header						
orientation	vertical	vertical			vertical	vertical

TL-93-331  
STC 55



2G16\_SS90(406)\_MFB90\_2G16

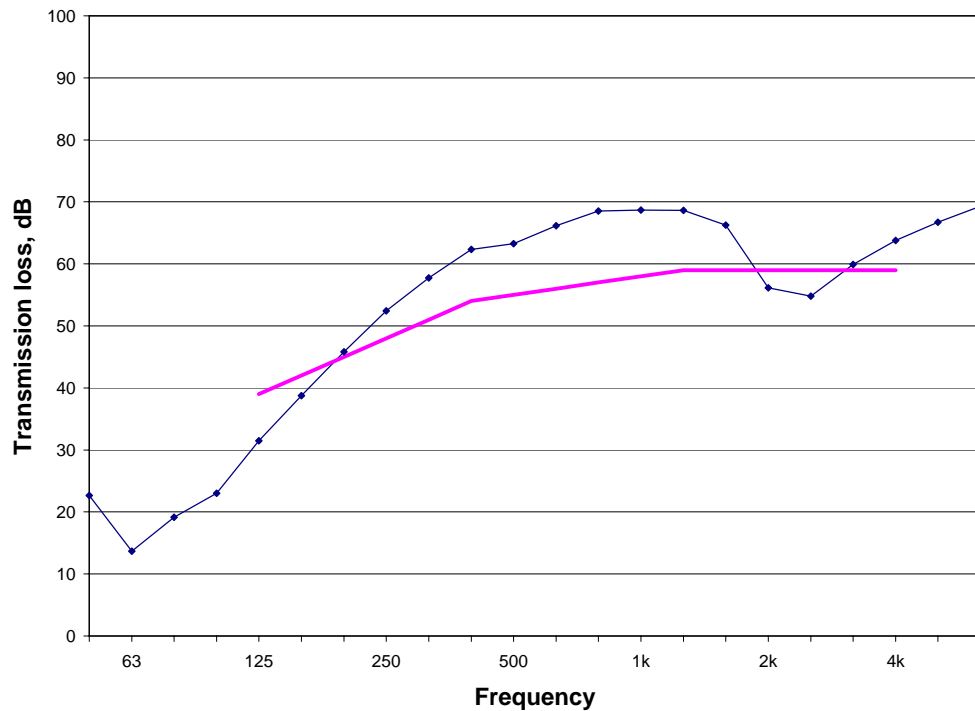
Element	Description:
1	single layer of 16 mm type X gypsum board
2	single layer of 16 mm type X gypsum board
3	90 mm steel studs at 406 mm on centre
4	90 mm of mineral fibre insulation in cavity
5	single layer of 16 mm type X gypsum board
6	single layer of 16 mm type X gypsum board



TestID	TL-93-332
STC	55
50 Hz	22.7
63 Hz	13.7
80 Hz	19.1
100 Hz	23.0
125 Hz	31.5
160 Hz	38.8
200 Hz	45.8
250 Hz	52.4
315 Hz	57.7
400 Hz	62.3
500 Hz	63.3
630 Hz	66.1
800 Hz	68.5
1000 Hz	68.7
1250 Hz	68.6
1600 Hz	66.3
2000 Hz	56.2
2500 Hz	54.8
3150 Hz	59.9
4000 Hz	63.8
5000 Hz	66.7
6300 Hz	69.3

TL-93-332	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	gypsum board	stud	insulation	gypsum board	gypsum board
material	CX	CX	steel	M1	CX	CX
thickness mm	16	16	90	90	16	16
gauge			25			
spacing mm			406			
surface density kg/m <sup>2</sup>	11.5	11.5		3.2	11.4	11.3
linear density kg/m			0.6			
total weight kg	85.6	85.4	16.2	22.7	84.8	84.2
fastener spacing - edge mm	305	305			305	305
fastener spacing - field mm	305	610			610	305
fastener top track pattern	d				d	d
fastener base track pattern	a	a			a	a
stud attached to top track						
double header						
orientation	vertical	vertical			vertical	vertical

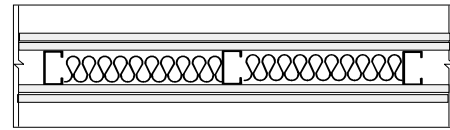
TL-93-332  
STC 55





2G16\_SS90(610)\_GFB90\_2G16

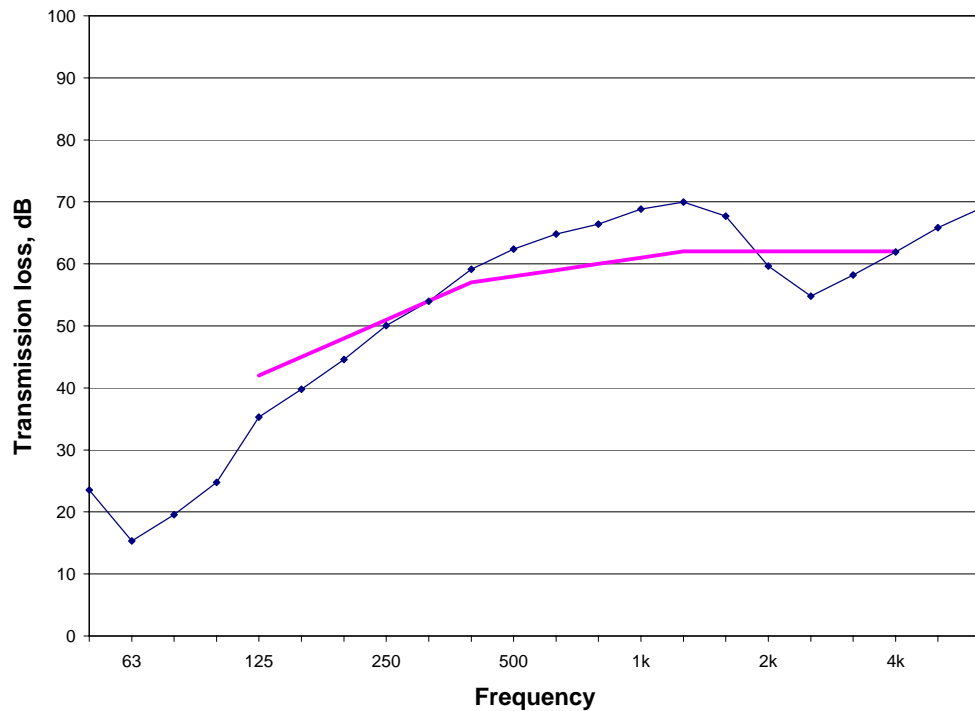
Element	Description:
1	single layer of 16 mm type X gypsum board
2	single layer of 16 mm type X gypsum board
3	90 mm steel studs at 610 mm on centre
4	90 mm of glass fibre insulation in cavity
5	single layer of 16 mm type X gypsum board
6	single layer of 16 mm type X gypsum board



TestID	TL-92-369
STC	58
50 Hz	23.5
63 Hz	15.3
80 Hz	19.6
100 Hz	24.8
125 Hz	35.3
160 Hz	39.8
200 Hz	44.6
250 Hz	50.1
315 Hz	54.0
400 Hz	59.1
500 Hz	62.4
630 Hz	64.8
800 Hz	66.4
1000 Hz	68.9
1250 Hz	70.0
1600 Hz	67.7
2000 Hz	59.7
2500 Hz	54.8
3150 Hz	58.2
4000 Hz	61.9
5000 Hz	65.8
6300 Hz	69.0

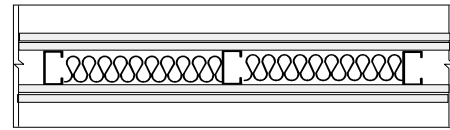
TL-92-369	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	gypsum board	stud	insulation	gypsum board	gypsum board
material	CX	CX	steel	G1	CX	CX
thickness mm	16	16	90	90	16	16
gauge			25			
spacing mm			610			
surface density kg/m <sup>2</sup>	11.2	10.9		1.2	11.3	11.0
linear density kg/m			0.5			
total weight kg	83.2	81.1	11.4	8.8	83.6	82.0
fastener spacing - edge mm	305	305			305	305
fastener spacing - field mm	305	610			610	305
fastener top track pattern	c	c			c	c
fastener base track pattern	c	c			c	c
stud attached to top track			yes			
double header						
orientation	vertical	vertical			vertical	vertical

TL-92-369  
STC 58



2G16\_SS90(610)\_MFB40\_2G16

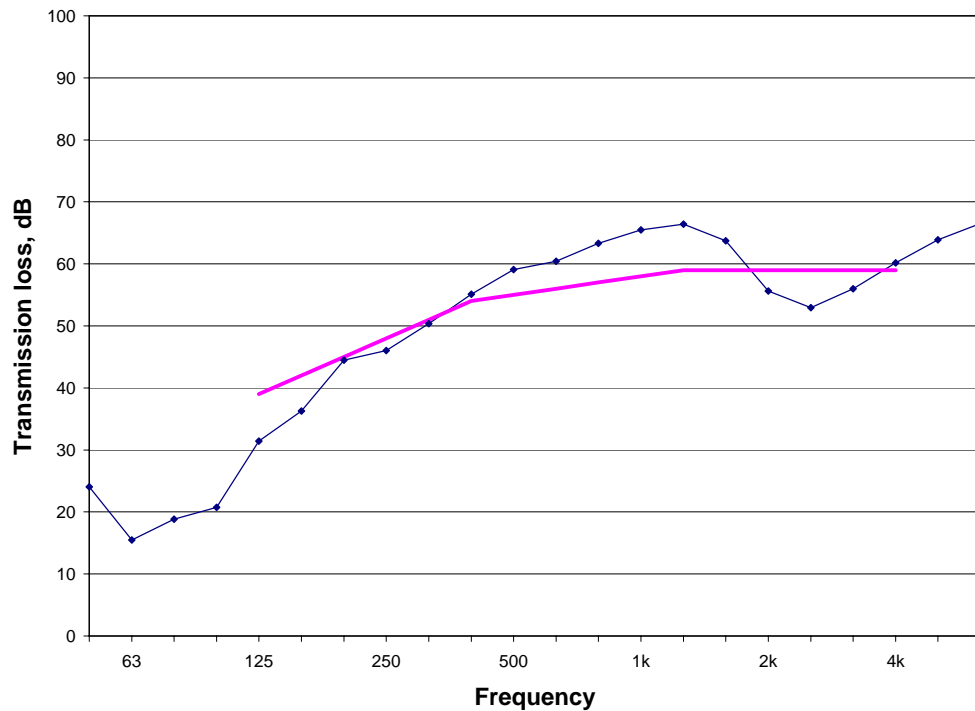
Element	Description:
1	single layer of 16 mm type X gypsum board
2	single layer of 16 mm type X gypsum board
3	90 mm steel studs at 610 mm on centre
4	40 mm of mineral fibre insulation in cavity
5	single layer of 16 mm type X gypsum board
6	single layer of 16 mm type X gypsum board



TestID	TL-92-398
STC	55
50 Hz	24.1
63 Hz	15.5
80 Hz	18.8
100 Hz	20.8
125 Hz	31.4
160 Hz	36.3
200 Hz	44.5
250 Hz	46.0
315 Hz	50.4
400 Hz	55.1
500 Hz	59.1
630 Hz	60.4
800 Hz	63.3
1000 Hz	65.5
1250 Hz	66.4
1600 Hz	63.7
2000 Hz	55.6
2500 Hz	52.9
3150 Hz	56.0
4000 Hz	60.2
5000 Hz	63.9
6300 Hz	66.5

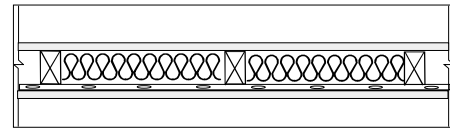
TL-92-398	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	gypsum board	stud	insulation	gypsum board	gypsum board
material	CX	CX	steel	M2	CX	CX
thickness mm	16	16	90	40	16	16
gauge			25			
spacing mm			610			
surface density kg/m <sup>2</sup>	11.0	10.9		1.5	10.9	11.0
linear density kg/m			0.6			
total weight kg	81.5	81.3	12.6	11.0	81.2	81.6
fastener spacing - edge mm	305	305			305	305
fastener spacing - field mm	305	610			610	305
fastener top track pattern	c	c			c	c
fastener base track pattern	c	vertical			c	c
stud attached to top track			yes			
double header						
orientation	vertical	vertical			vertical	vertical

TL-92-398  
STC 55



G13\_WS90(406)\_CFL90\_RC13(610)\_G13

Element	Description:
1	single layer of 13 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	90 mm of blown cellulose fibre insulation in cavity
4	resilient channels at 610 mm on centre
5	single layer of 13 mm type X gypsum board

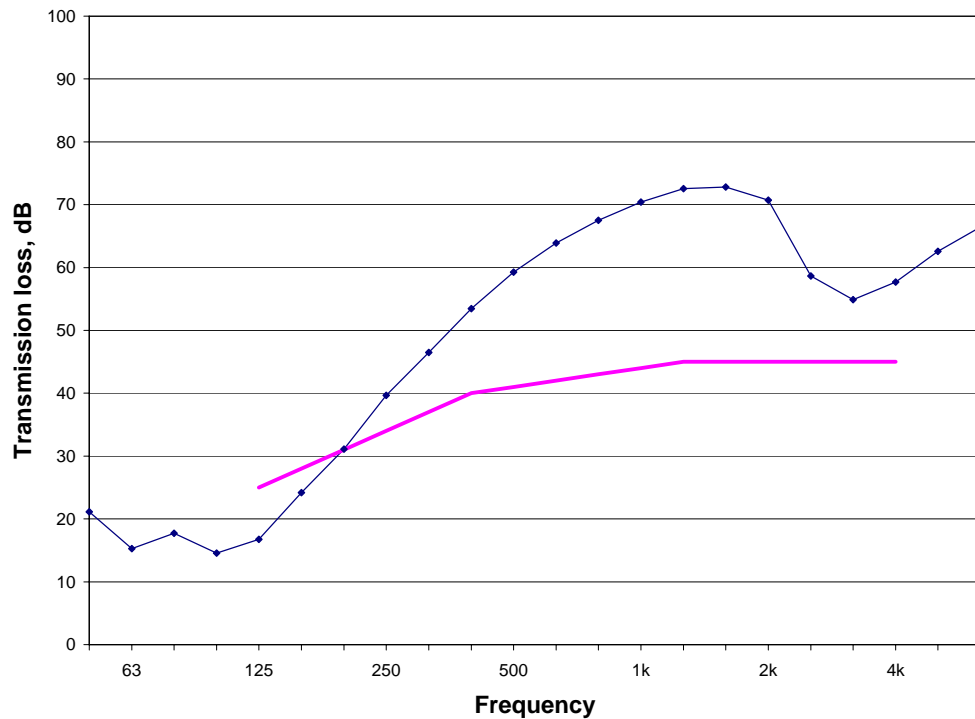


TestID	TL-93-171
STC	41
50 Hz	21.1
63 Hz	15.3
80 Hz	17.7
100 Hz	14.5
125 Hz	16.7
160 Hz	24.2
200 Hz	31.1
250 Hz	39.6
315 Hz	46.5
400 Hz	53.5
500 Hz	59.3
630 Hz	63.9
800 Hz	67.5
1000 Hz	70.4
1250 Hz	72.6
1600 Hz	72.8
2000 Hz	70.7
2500 Hz	58.6
3150 Hz	54.9
4000 Hz	57.7
5000 Hz	62.6
6300 Hz	66.5

TL-93-171

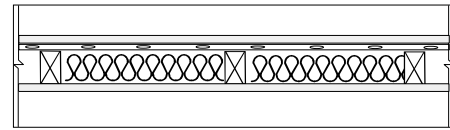
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	resilient	gypsum board
material	AX	wood	C2	G.P	AX
thickness mm	13	90	90	13	13
gauge					
spacing mm		406		610	
surface density kg/m <sup>2</sup>	10.0		4.8		10.0
linear density kg/m		1.4			
total weight kg	74.4	41.3	32.7	3.8	74.0
fastener spacing - edge mm	406				305
fastener spacing - field mm	406				305
fastener top track pattern	c				
fastener base track pattern	c				
stud attached to top track		yes			
double header		yes			
orientation	vertical			horizontal	horizontal

TL-93-171  
STC 41



G13\_RC13(610)\_WS90(406)\_GFB90\_G13

Element	Description:
1	single layer of 13 mm gypsum board
2	resilient channels at 610 mm on centre
3	90 mm wood studs at 406 mm on centre
4	90 mm of glass fibre insulation in cavity
5	single layer of 13 mm gypsum board

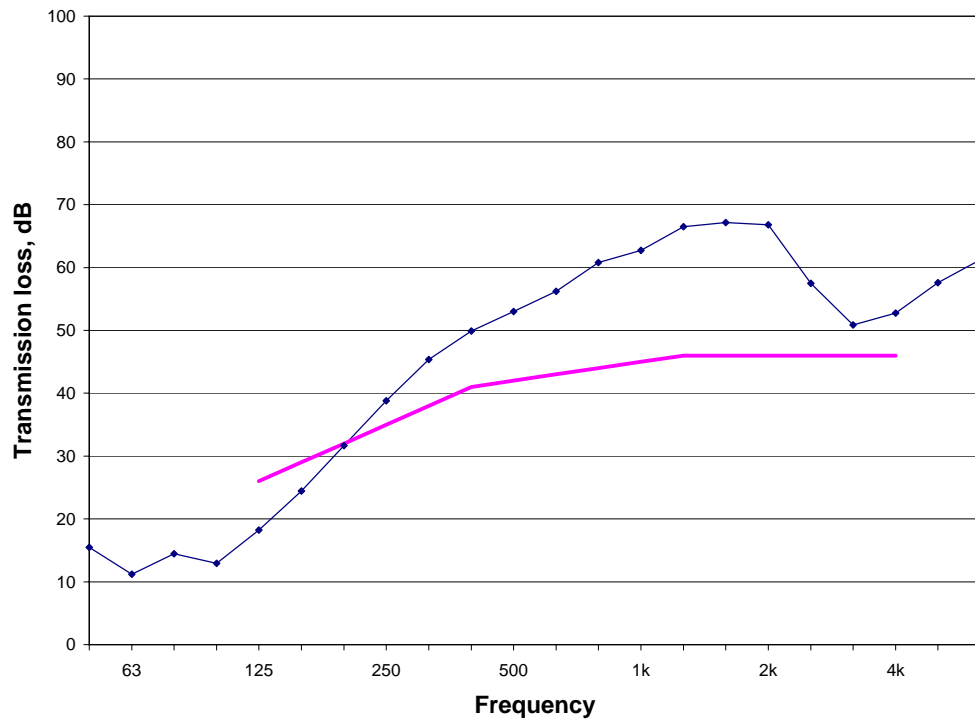


TestID	TL-94-001
STC	42
50 Hz	15.5
63 Hz	11.2
80 Hz	14.4
100 Hz	12.9
125 Hz	18.2
160 Hz	24.5
200 Hz	31.7
250 Hz	38.8
315 Hz	45.4
400 Hz	49.9
500 Hz	53.0
630 Hz	56.2
800 Hz	60.8
1000 Hz	62.7
1250 Hz	66.5
1600 Hz	67.2
2000 Hz	66.8
2500 Hz	57.5
3150 Hz	50.9
4000 Hz	52.7
5000 Hz	57.6
6300 Hz	61.3

TL-94-001

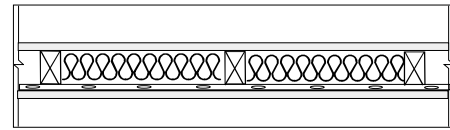
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	resilient	stud	insulation	gypsum board
material	BL	G.P.	wood	G1	BL
thickness mm	13	13	90	90	13
gauge					
spacing mm		610	406		
surface density kg/m <sup>2</sup>	7.2			1.1	7.3
linear density kg/m			1.4		
total weight kg	53.7	4.0	41.0	7.8	54.3
fastener spacing - edge mm	305				406
fastener spacing - field mm	305				406
fastener top track pattern					c
fastener base track pattern					c
stud attached to top track			yes		
double header			yes		
orientation	horizontal	horizontal			vertical

TL-94-001  
STC 42



G13\_WS90(406)\_GFB90\_RC13(610)\_G13

Element	Description:
1	single layer of 13 mm gypsum board
2	90 mm wood studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	resilient channels at 610 mm on centre
5	single layer of 13 mm gypsum board

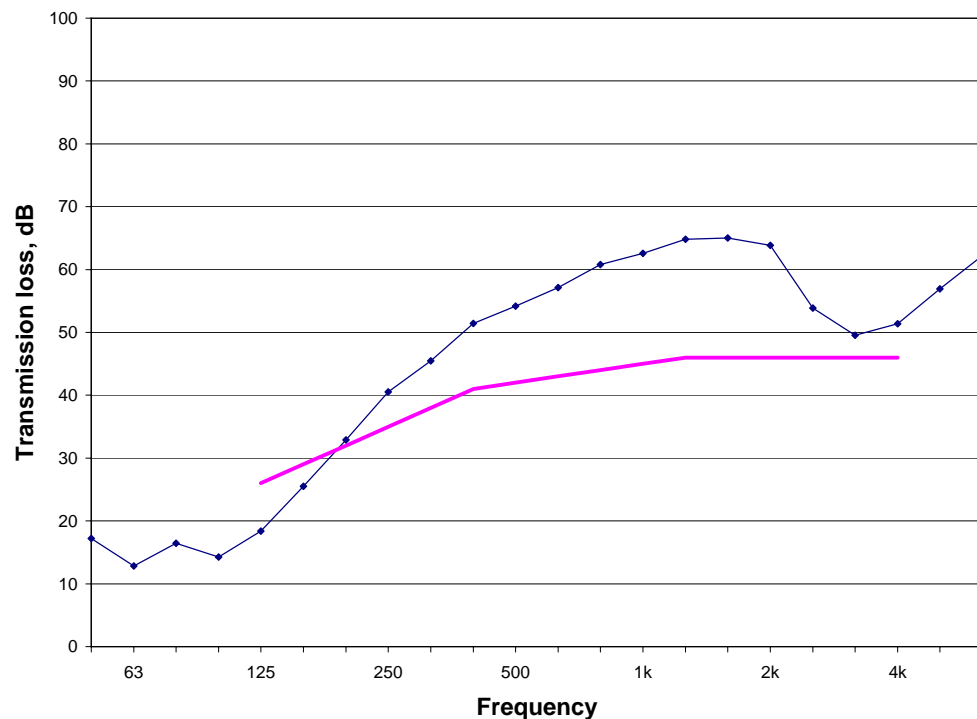


TestID	TL-93-128
STC	42
50 Hz	17.2
63 Hz	12.8
80 Hz	16.5
100 Hz	14.2
125 Hz	18.4
160 Hz	25.5
200 Hz	32.9
250 Hz	40.5
315 Hz	45.5
400 Hz	51.4
500 Hz	54.2
630 Hz	57.1
800 Hz	60.8
1000 Hz	62.6
1250 Hz	64.8
1600 Hz	65.0
2000 Hz	63.8
2500 Hz	53.9
3150 Hz	49.5
4000 Hz	51.4
5000 Hz	56.9
6300 Hz	62.2

TL-93-128

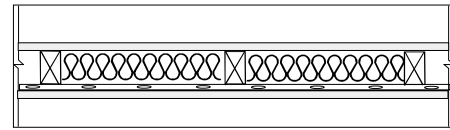
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	resilient	gypsum board
material	B	wood	G1	G.P	B
thickness mm	13	90	90	13	13
gauge					
spacing mm		406		610	
surface density kg/m <sup>2</sup>	8.2		1.0		8.3
linear density kg/m		1.4			
total weight kg	61.1	40.7	7.6	3.6	61.5
fastener spacing - edge mm	406				305
fastener spacing - field mm	406				305
fastener top track pattern	c				
fastener base track pattern	c				
stud attached to top track		yes			
double header		yes			
orientation	vertical			horizontal	horizontal

TL-93-128  
STC 42



G13\_WS90(406)\_GFB90\_RC13(610)\_G13

Element	Description:
1	single layer of 13 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	resilient channels at 610 mm on centre
5	single layer of 13 mm type X gypsum board

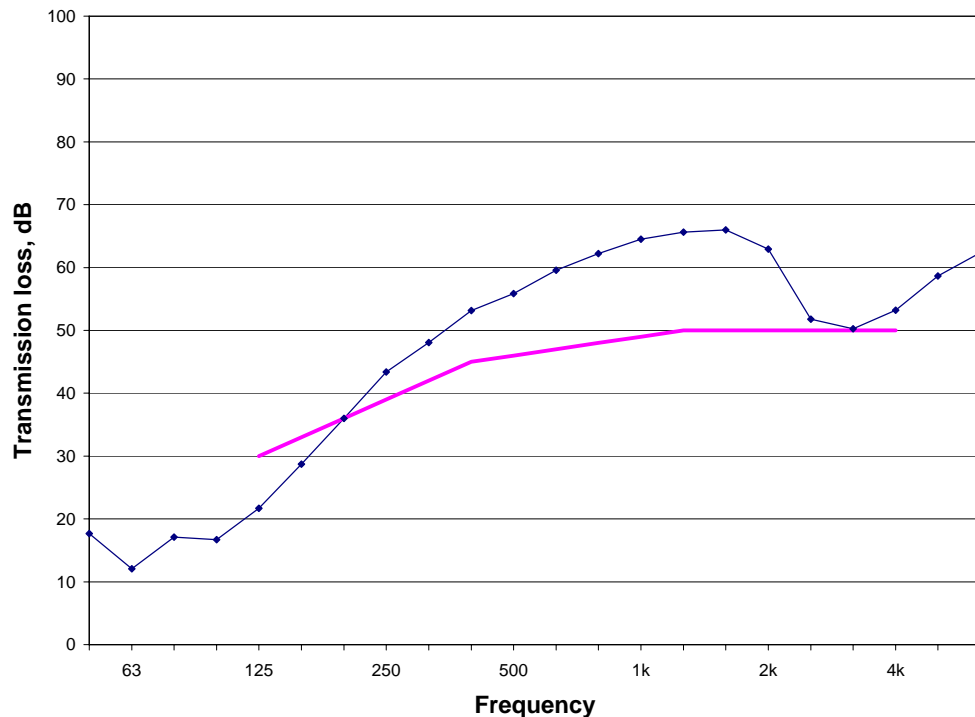


TestID	TL-93-125
STC	46
50 Hz	17.7
63 Hz	12.1
80 Hz	17.1
100 Hz	16.7
125 Hz	21.7
160 Hz	28.7
200 Hz	36.0
250 Hz	43.4
315 Hz	48.1
400 Hz	53.1
500 Hz	55.8
630 Hz	59.6
800 Hz	62.2
1000 Hz	64.5
1250 Hz	65.6
1600 Hz	66.0
2000 Hz	62.9
2500 Hz	51.8
3150 Hz	50.3
4000 Hz	53.2
5000 Hz	58.7
6300 Hz	62.4

TL-93-125

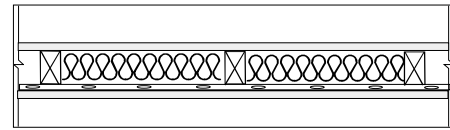
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	resilient	gypsum board
material	AX	wood	G1	G.P	AX
thickness mm	13	90	90	13	13
gauge					
spacing mm		406		610	
surface density kg/m <sup>2</sup>	9.9		1.0		10.1
linear density kg/m		1.4			
total weight kg	73.6	40.7	7.6	3.6	74.9
fastener spacing - edge mm	406				305
fastener spacing - field mm	406				305
fastener top track pattern	c				
fastener base track pattern	c				
stud attached to top track		yes			
double header		yes			
orientation	vertical			horizontal	horizontal

TL-93-125  
STC 46



G13\_WS90(406)\_GFB90\_RC13(610)\_G13

Element	Description:
1	single layer of 13 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	resilient channels at 610 mm on centre
5	single layer of 13 mm type X gypsum board

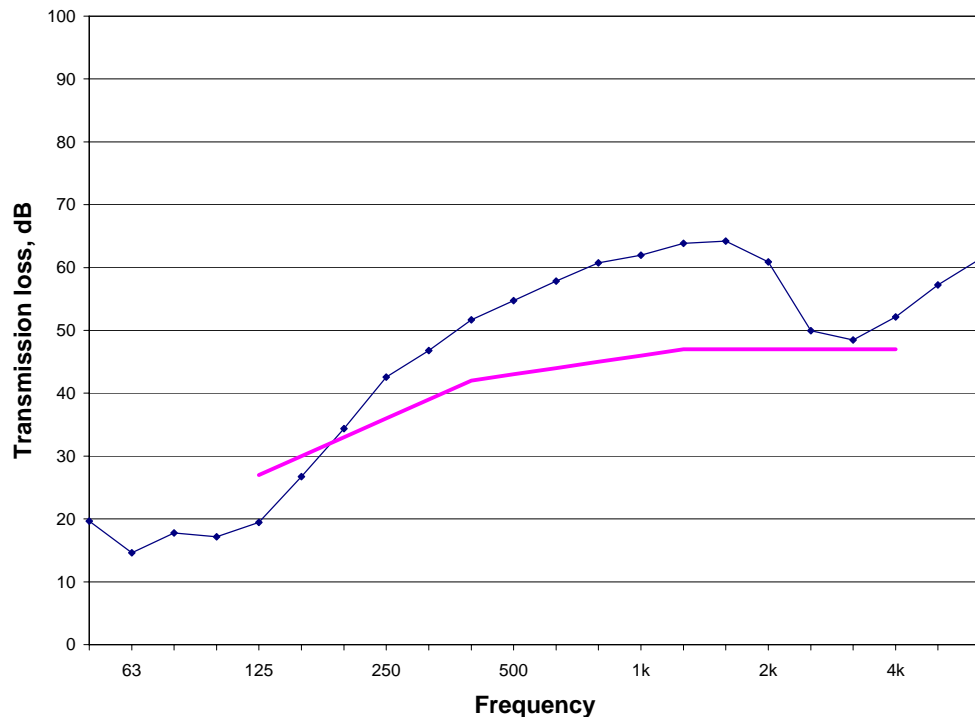


TestID	TL-93-148
STC	43
50 Hz	19.7
63 Hz	14.6
80 Hz	17.8
100 Hz	17.1
125 Hz	19.4
160 Hz	26.7
200 Hz	34.4
250 Hz	42.6
315 Hz	46.8
400 Hz	51.7
500 Hz	54.7
630 Hz	57.8
800 Hz	60.8
1000 Hz	62.0
1250 Hz	63.8
1600 Hz	64.2
2000 Hz	60.9
2500 Hz	50.0
3150 Hz	48.5
4000 Hz	52.1
5000 Hz	57.2
6300 Hz	61.4

TL-93-148

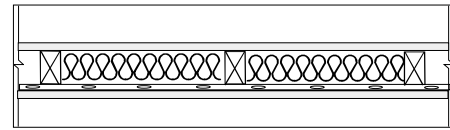
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	resilient	gypsum board
material	BX	wood	G1	G.P	BX
thickness mm	13	90	90	13	13
gauge					
spacing mm		406		610	
surface density kg/m <sup>2</sup>	9.4		1.0		9.5
linear density kg/m		1.6			
total weight kg	70.2	46.8	7.7	3.8	70.9
fastener spacing - edge mm	406				305
fastener spacing - field mm	406				305
fastener top track pattern	c				
fastener base track pattern	c				
stud attached to top track		yes			
double header		yes			
orientation	vertical			horizontal	horizontal

TL-93-148  
STC 43



G13\_WS90(406)\_GFB90\_RC13(610)\_G13

Element	Description:
1	single layer of 13 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	resilient channels at 610 mm on centre
5	single layer of 13 mm type X gypsum board

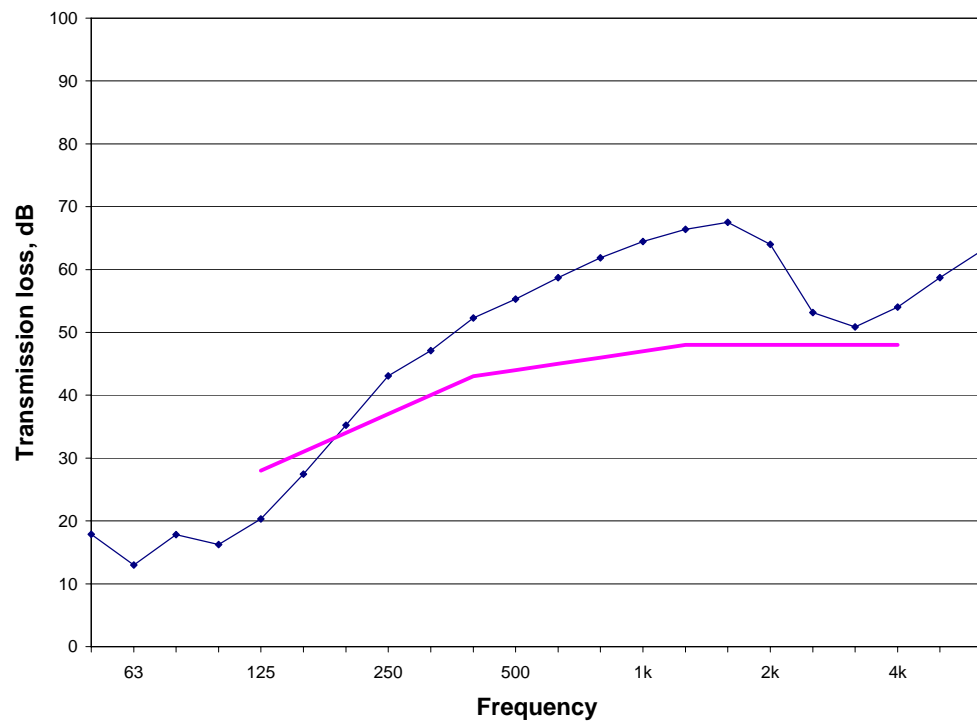


TestID	TL-93-177
STC	44
50 Hz	17.9
63 Hz	13.0
80 Hz	17.8
100 Hz	16.2
125 Hz	20.3
160 Hz	27.4
200 Hz	35.2
250 Hz	43.1
315 Hz	47.1
400 Hz	52.3
500 Hz	55.3
630 Hz	58.7
800 Hz	61.8
1000 Hz	64.5
1250 Hz	66.4
1600 Hz	67.5
2000 Hz	64.0
2500 Hz	53.1
3150 Hz	50.8
4000 Hz	54.0
5000 Hz	58.7
6300 Hz	63.1

TL-93-177

	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	resilient	gypsum board
material	AX	wood	G1	G.P	AX
thickness mm	13	90	90	13	13
gauge					
spacing mm		406		610	
surface density kg/m <sup>2</sup>	10.0		1.0		10.0
linear density kg/m		1.4			
total weight kg	74.4	41.3	7.5	3.8	74.5
fastener spacing - edge mm	406				305
fastener spacing - field mm	406				305
fastener top track pattern	c				
fastener base track pattern	c				
stud attached to top track		yes			
double header		yes			
orientation	vertical			horizontal	horizontal

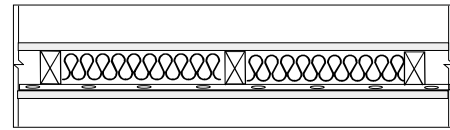
TL-93-177  
STC 44





G13\_WS90(406)\_GFB90\_RC13(610)\_G13

Element	Description:
1	single layer of 13 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	resilient channels at 610 mm on centre
5	single layer of 13 mm type X gypsum board

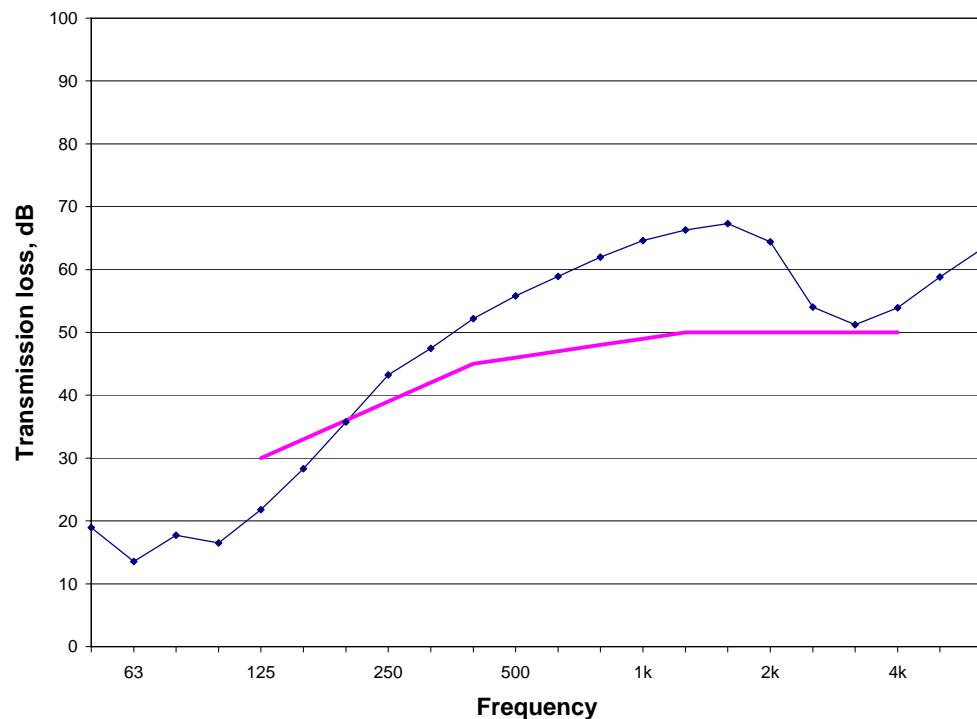


TestID	TL-93-178
STC	46
50 Hz	18.9
63 Hz	13.5
80 Hz	17.7
100 Hz	16.5
125 Hz	21.8
160 Hz	28.3
200 Hz	35.8
250 Hz	43.2
315 Hz	47.4
400 Hz	52.2
500 Hz	55.8
630 Hz	58.9
800 Hz	62.0
1000 Hz	64.6
1250 Hz	66.3
1600 Hz	67.3
2000 Hz	64.4
2500 Hz	54.0
3150 Hz	51.2
4000 Hz	53.9
5000 Hz	58.8
6300 Hz	63.3

TL-93-178

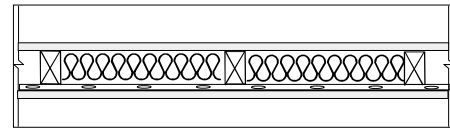
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	resilient	gypsum board
material	AX	wood	G1	G.P	AX
thickness mm	13	90	90	13	13
gauge					
spacing mm		406		610	
surface density kg/m <sup>2</sup>	10.0		1.0		10.0
linear density kg/m		1.4			
total weight kg	74.6	41.3	7.5	3.8	74.5
fastener spacing - edge mm	406				305
fastener spacing - field mm	406				305
fastener top track pattern	c				
fastener base track pattern	c				
stud attached to top track		yes			
double header		yes			
orientation	vertical			horizontal	horizontal

TL-93-178  
STC 46



G13\_WS90(406)\_GFB90\_RC13(610)\_G13

Element	Description:
1	single layer of 13 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	resilient channels at 610 mm on centre
5	single layer of 13 mm type X gypsum board

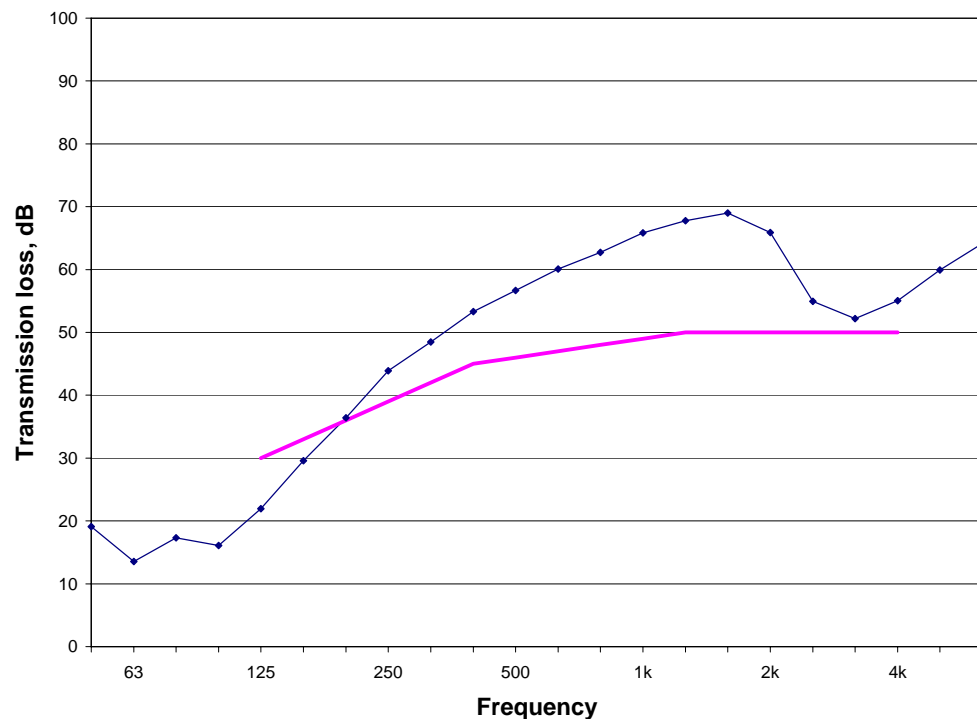


TestID	TL-93-179
STC	46
50 Hz	19.1
63 Hz	13.5
80 Hz	17.3
100 Hz	16.1
125 Hz	21.9
160 Hz	29.6
200 Hz	36.4
250 Hz	43.9
315 Hz	48.5
400 Hz	53.3
500 Hz	56.7
630 Hz	60.1
800 Hz	62.7
1000 Hz	65.8
1250 Hz	67.8
1600 Hz	69.0
2000 Hz	65.9
2500 Hz	54.9
3150 Hz	52.2
4000 Hz	55.0
5000 Hz	59.9
6300 Hz	64.2

TL-93-179

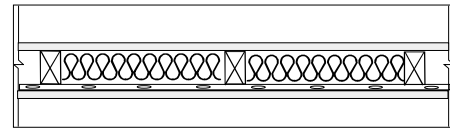
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	resilient	gypsum board
material	AX	wood	G2	G.P	AX
thickness mm	13	90	90	13	13
gauge					
spacing mm		406		610	
surface density kg/m <sup>2</sup>	10.0		1.3		10.0
linear density kg/m		1.4			
total weight kg	74.4	41.3	10.0	3.8	74.5
fastener spacing - edge mm	406				305
fastener spacing - field mm	406				305
fastener top track pattern	c				
fastener base track pattern	c				
stud attached to top track		yes			
double header		yes			
orientation	vertical			horizontal	horizontal

TL-93-179  
STC 46



G13\_WS90(406)\_MFB65\_RC13(610)\_G13

Element	Description:
1	single layer of 13 mm gypsum board
2	90 mm wood studs at 406 mm on centre
3	65 mm of mineral fibre insulation in cavity
4	resilient channels at 610 mm on centre
5	single layer of 13 mm gypsum board

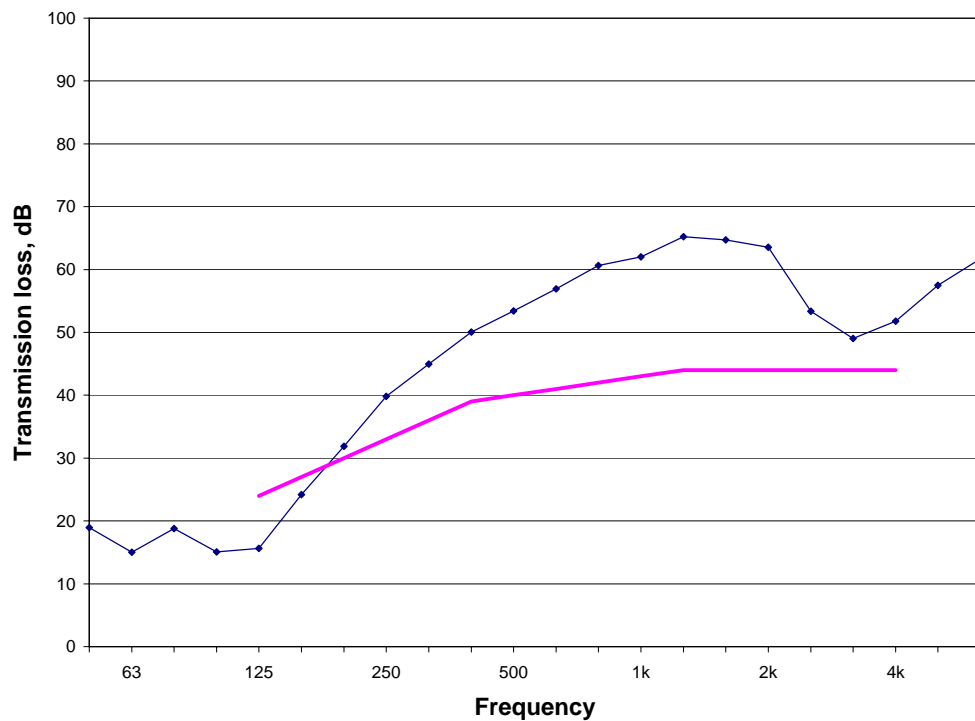


TestID	TL-93-162
STC	40
50 Hz	18.9
63 Hz	15.0
80 Hz	18.8
100 Hz	15.1
125 Hz	15.6
160 Hz	24.2
200 Hz	31.9
250 Hz	39.8
315 Hz	45.0
400 Hz	50.0
500 Hz	53.4
630 Hz	56.9
800 Hz	60.7
1000 Hz	62.0
1250 Hz	65.2
1600 Hz	64.7
2000 Hz	63.6
2500 Hz	53.4
3150 Hz	49.0
4000 Hz	51.8
5000 Hz	57.5
6300 Hz	61.7

TL-93-162

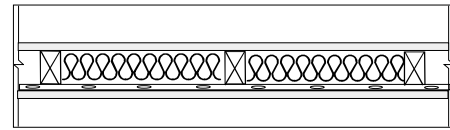
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	resilient	gypsum board
material	B	wood	M1	G.P	B
thickness mm	13	90	65	13	13
gauge					
spacing mm		406		610	
surface density kg/m <sup>2</sup>	8.3		2.2		8.2
linear density kg/m		1.6			
total weight kg	61.5	46.8	16.7	3.8	61.1
fastener spacing - edge mm	406				305
fastener spacing - field mm	406				305
fastener top track pattern	c				
fastener base track pattern	c				
stud attached to top track		yes			
double header		yes			
orientation	vertical			horizontal	horizontal

TL-93-162  
STC 40



G13\_WS90(406)\_MFB65\_RC13(610)\_G13

Element	Description:
1	single layer of 13 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	65 mm of mineral fibre insulation in cavity
4	resilient channels at 610 mm on centre
5	single layer of 13 mm type X gypsum board

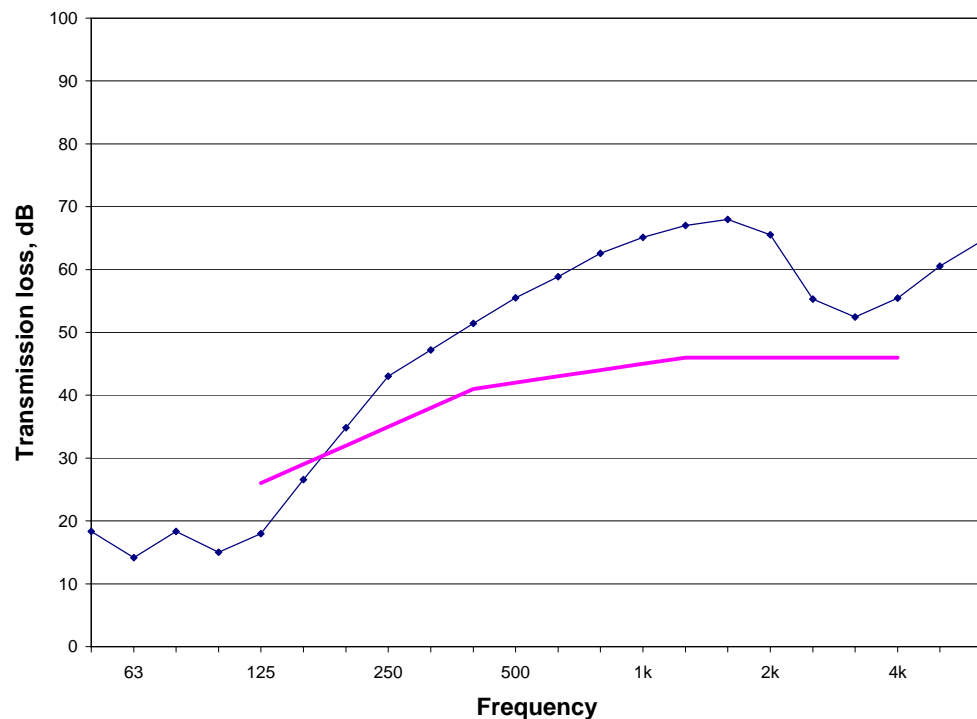


TestID	TL-93-184
STC	42
50 Hz	18.3
63 Hz	14.1
80 Hz	18.4
100 Hz	15.0
125 Hz	17.9
160 Hz	26.6
200 Hz	34.8
250 Hz	43.0
315 Hz	47.2
400 Hz	51.4
500 Hz	55.5
630 Hz	58.8
800 Hz	62.6
1000 Hz	65.1
1250 Hz	67.0
1600 Hz	68.0
2000 Hz	65.5
2500 Hz	55.3
3150 Hz	52.5
4000 Hz	55.4
5000 Hz	60.5
6300 Hz	64.6

TL-93-184

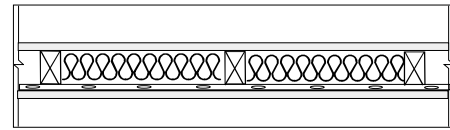
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	resilient	gypsum board
material	AX	wood	M1	G.P	AX
thickness mm	13	90	65	13	13
gauge					
spacing mm		406		610	
surface density kg/m <sup>2</sup>	10.0		2.3		10.0
linear density kg/m		1.4			
total weight kg	74.0	41.3	17.1	3.8	74.5
fastener spacing - edge mm	406				305
fastener spacing - field mm	406				305
fastener top track pattern	c				
fastener base track pattern	c				
stud attached to top track		yes			
double header		yes			
orientation	vertical			horizontal	horizontal

TL-93-184  
STC 42



G13\_WS90(406)\_MFB90\_RC13(610)\_G13

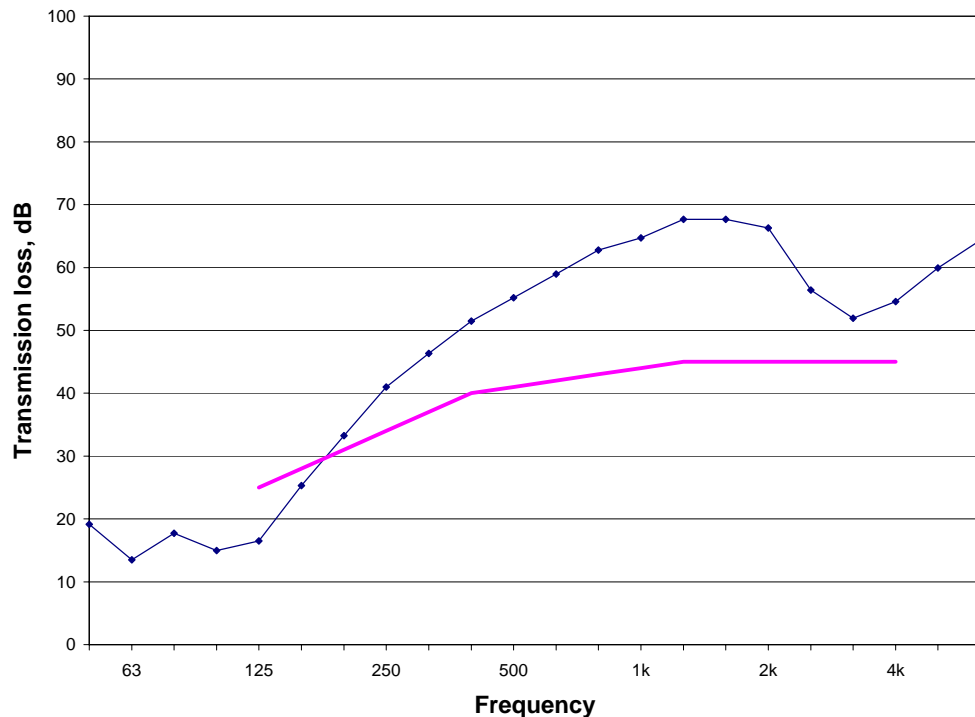
Element	Description:
1	single layer of 13 mm gypsum board
2	90 mm wood studs at 406 mm on centre
3	90 mm of mineral fibre insulation in cavity
4	resilient channels at 610 mm on centre
5	single layer of 13 mm gypsum board



TestID	TL-93-165
STC	41
50 Hz	19.1
63 Hz	13.5
80 Hz	17.7
100 Hz	15.0
125 Hz	16.5
160 Hz	25.3
200 Hz	33.3
250 Hz	41.0
315 Hz	46.3
400 Hz	51.5
500 Hz	55.2
630 Hz	59.0
800 Hz	62.8
1000 Hz	64.7
1250 Hz	67.7
1600 Hz	67.6
2000 Hz	66.3
2500 Hz	56.4
3150 Hz	51.9
4000 Hz	54.6
5000 Hz	59.9
6300 Hz	64.4

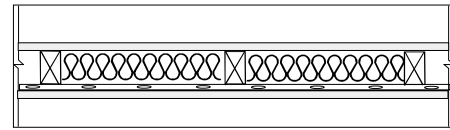
TL-93-165	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	resilient	gypsum board
material	B	wood	M1	G.P	B
thickness mm	13	90	90	13	13
gauge					
spacing mm		406		610	
surface density kg/m <sup>2</sup>	8.3		2.3		8.3
linear density kg/m		1.6			
total weight kg	61.5	46.8	17.3	3.8	61.5
fastener spacing - edge mm	406				305
fastener spacing - field mm	406				305
fastener top track pattern	c				
fastener base track pattern	c				
stud attached to top track		yes			
double header		yes			
orientation	vertical			horizontal	horizontal

TL-93-165  
STC 41



G13\_WS90(406)\_MFB90\_RC13(610)\_G13

Element	Description:
1	single layer of 13 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	90 mm of mineral fibre insulation in cavity
4	resilient channels at 610 mm on centre
5	single layer of 13 mm type X gypsum board

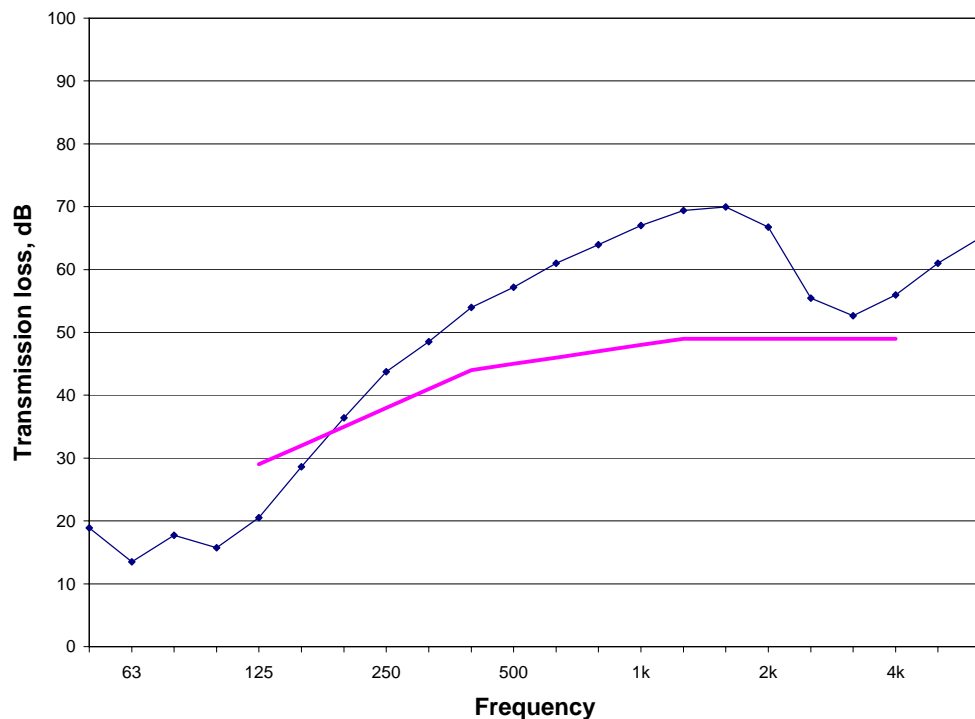


TestID	TL-93-185
STC	45
50 Hz	18.9
63 Hz	13.5
80 Hz	17.7
100 Hz	15.7
125 Hz	20.5
160 Hz	28.6
200 Hz	36.4
250 Hz	43.7
315 Hz	48.5
400 Hz	54.0
500 Hz	57.2
630 Hz	61.0
800 Hz	64.0
1000 Hz	67.0
1250 Hz	69.4
1600 Hz	70.0
2000 Hz	66.8
2500 Hz	55.4
3150 Hz	52.7
4000 Hz	56.0
5000 Hz	61.0
6300 Hz	65.1

TL-93-185

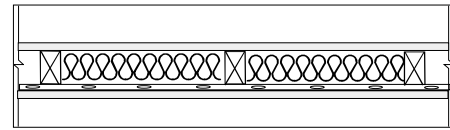
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	resilient	gypsum board
material	AX	wood	M1	G.P	AX
thickness mm	13	90	90	13	13
gauge					
spacing mm		406		610	
surface density kg/m <sup>2</sup>	10.1		2.4		10.0
linear density kg/m		1.4			
total weight kg	75.1	41.3	17.8	3.8	74.5
fastener spacing - edge mm	406				305
fastener spacing - field mm	406				305
fastener top track pattern	c				
fastener base track pattern	c				
stud attached to top track		yes			
double header		yes			
orientation	vertical			horizontal	horizontal

TL-93-185  
STC 45



G13\_WS90(610)\_GFB65\_RC13(610)\_G13

Element	Description:
1	single layer of 13 mm type X gypsum board
2	90 mm wood studs at 610 mm on centre
3	65 mm of glass fibre insulation in cavity
4	resilient channels at 610 mm on centre
5	single layer of 13 mm type X gypsum board

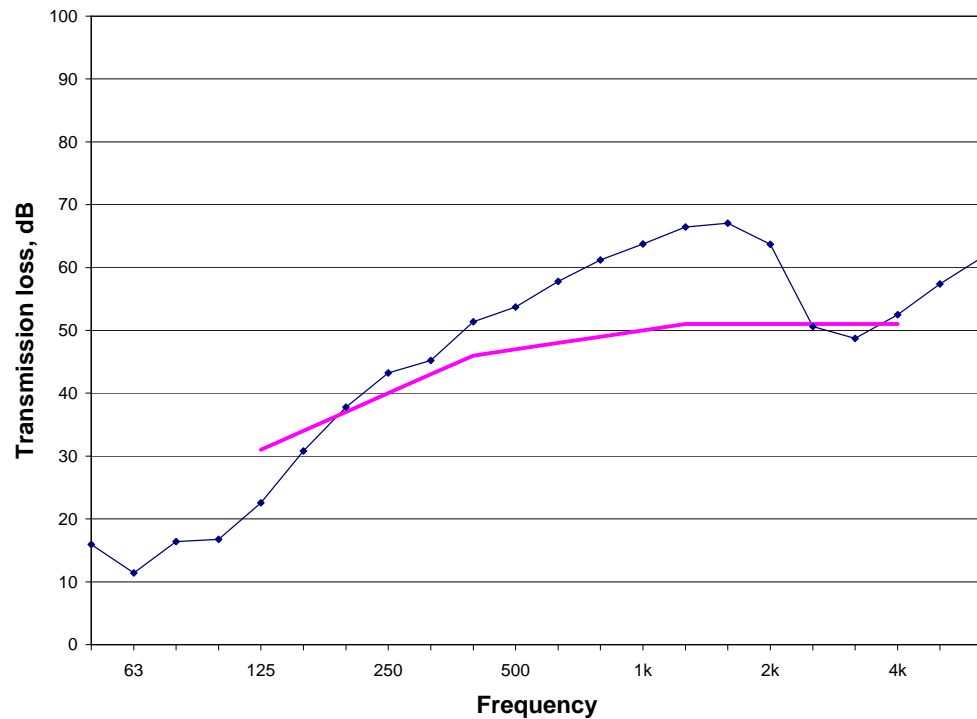


TestID	TL-93-093
STC	47
50 Hz	16.0
63 Hz	11.4
80 Hz	16.4
100 Hz	16.8
125 Hz	22.6
160 Hz	30.8
200 Hz	37.8
250 Hz	43.2
315 Hz	45.2
400 Hz	51.4
500 Hz	53.7
630 Hz	57.8
800 Hz	61.2
1000 Hz	63.7
1250 Hz	66.4
1600 Hz	67.0
2000 Hz	63.7
2500 Hz	50.6
3150 Hz	48.7
4000 Hz	52.5
5000 Hz	57.4
6300 Hz	61.6

TL-93-093

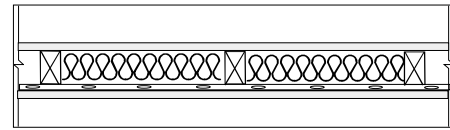
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	resilient	gypsum board
material	AX	wood	G1	G.P.	AX
thickness mm	13	90	65	13	13
gauge					
spacing mm		610		610	
surface density kg/m <sup>2</sup>	10.0		0.7		10.1
linear density kg/m		1.3			
total weight kg	74.4	29.1	5.2	3.8	75.0
fastener spacing - edge mm	305				305
fastener spacing - field mm	305				305
fastener top track pattern	c				
fastener base track pattern	c				
stud attached to top track		yes			
double header					
orientation	vertical			horizontal	horizontal

TL-93-093  
STC 47



G16\_WS90(406)\_GFB90\_RC13(406)\_G16

Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	resilient channels at 406 mm on centre
5	single layer of 16 mm type X gypsum board

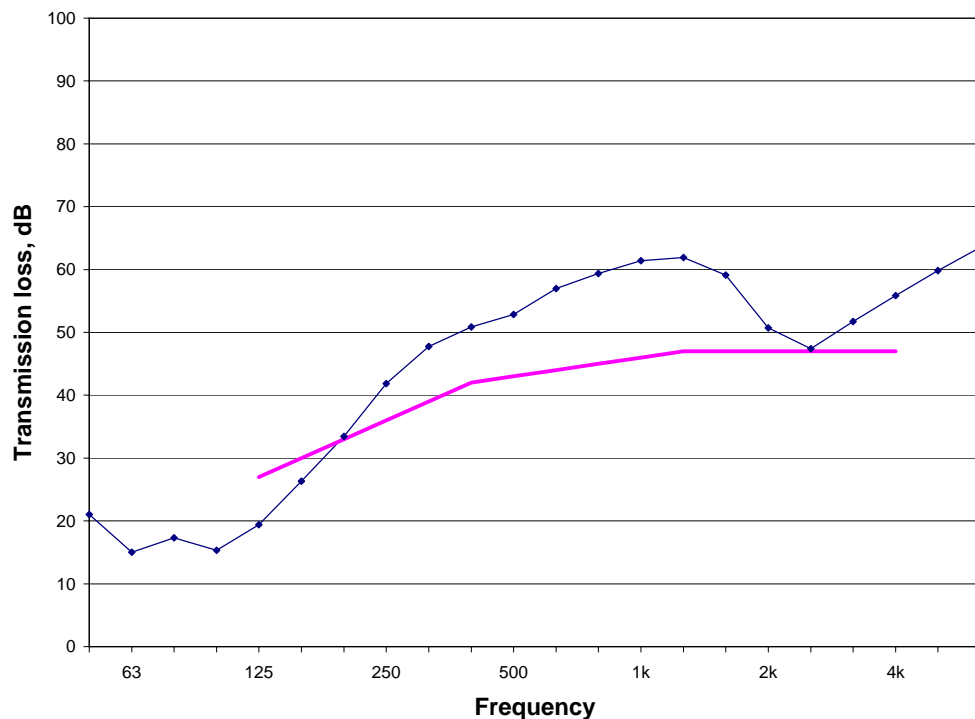


TestID	TL-93-117
STC	43
50 Hz	21.0
63 Hz	15.0
80 Hz	17.3
100 Hz	15.3
125 Hz	19.4
160 Hz	26.3
200 Hz	33.4
250 Hz	41.9
315 Hz	47.8
400 Hz	50.8
500 Hz	52.8
630 Hz	57.0
800 Hz	59.4
1000 Hz	61.4
1250 Hz	61.9
1600 Hz	59.1
2000 Hz	50.7
2500 Hz	47.4
3150 Hz	51.7
4000 Hz	55.8
5000 Hz	59.8
6300 Hz	63.6

TL-93-117

	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	resilient	gypsum board
material	CX	wood	G1	G.P	CX
thickness mm	16	90	90	13	16
gauge					
spacing mm		406		406	
surface density kg/m <sup>2</sup>	11.1		1.0		11.1
linear density kg/m		1.4			
total weight kg	82.7	40.7	7.6	5.3	82.6
fastener spacing - edge mm	406				305
fastener spacing - field mm	406				305
fastener top track pattern	c				
fastener base track pattern	c				
stud attached to top track		yes			
double header		yes			
orientation	vertical			horizontal	horizontal

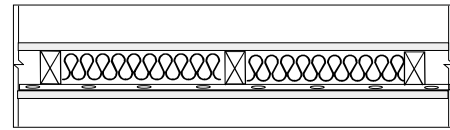
TL-93-117  
STC 43





G16\_WS90(406)\_GFB90\_RC13(406)\_G16

Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	resilient channels at 406 mm on centre
5	single layer of 16 mm type X gypsum board

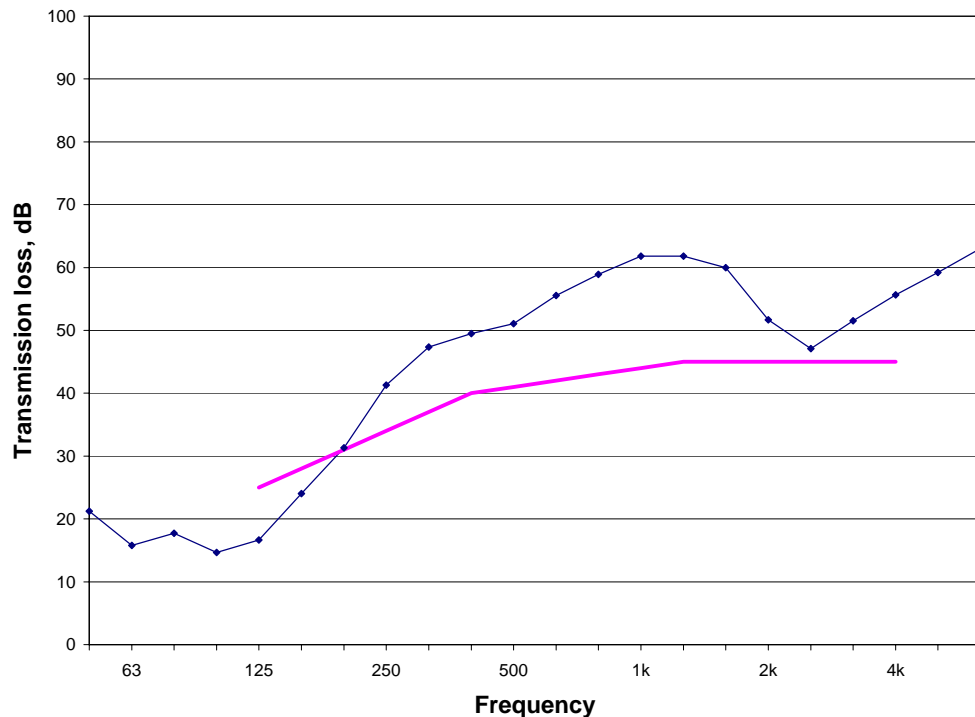


TestID	TL-93-121
STC	41
50 Hz	21.2
63 Hz	15.8
80 Hz	17.7
100 Hz	14.7
125 Hz	16.7
160 Hz	24.0
200 Hz	31.3
250 Hz	41.3
315 Hz	47.4
400 Hz	49.5
500 Hz	51.1
630 Hz	55.6
800 Hz	58.9
1000 Hz	61.8
1250 Hz	61.8
1600 Hz	60.0
2000 Hz	51.7
2500 Hz	47.1
3150 Hz	51.5
4000 Hz	55.7
5000 Hz	59.2
6300 Hz	63.0

TL-93-121

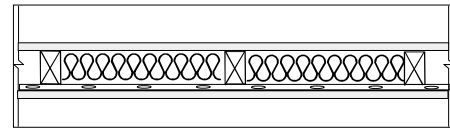
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	resilient	gypsum board
material	CX	wood	G1	P.M.	CX
thickness mm	16	90	90	13	16
gauge					
spacing mm		406		406	
surface density kg/m <sup>2</sup>	10.9		1.0		11.1
linear density kg/m		1.4			
total weight kg	81.1	40.7	7.6	5.7	82.6
fastener spacing - edge mm	406				305
fastener spacing - field mm	406				305
fastener top track pattern	c				
fastener base track pattern	c				
stud attached to top track		yes			
double header		yes			
orientation	vertical			horizontal	horizontal

TL-93-121  
STC 41



G16\_WS90(406)\_CFL90\_RC13(610)\_G16

Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	90 mm of blown cellulose fibre insulation in cavity
4	resilient channels at 610 mm on centre
5	single layer of 16 mm type X gypsum board

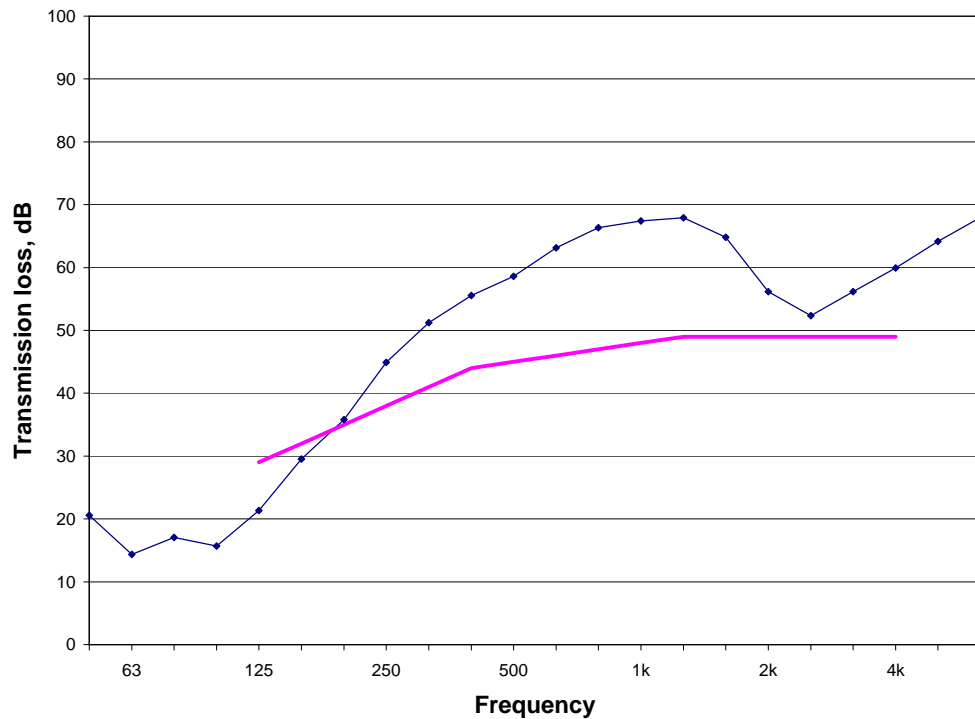


TestID	TL-93-105
STC	45
50 Hz	20.6
63 Hz	14.4
80 Hz	17.1
100 Hz	15.7
125 Hz	21.3
160 Hz	29.5
200 Hz	35.8
250 Hz	44.9
315 Hz	51.2
400 Hz	55.6
500 Hz	58.6
630 Hz	63.1
800 Hz	66.3
1000 Hz	67.4
1250 Hz	67.9
1600 Hz	64.8
2000 Hz	56.2
2500 Hz	52.3
3150 Hz	56.1
4000 Hz	59.9
5000 Hz	64.1
6300 Hz	68.0

TL-93-105

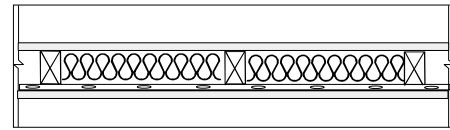
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	resilient	gypsum board
material	CX	wood	C2	G.P.	CX
thickness mm	16	90	90	13	16
gauge					
spacing mm		406		610	
surface density kg/m <sup>2</sup>	11.0		5.4		11.0
linear density kg/m		1.4			
total weight kg	81.4	40.7	36.2	3.8	81.6
fastener spacing - edge mm	406				305
fastener spacing - field mm	406				305
fastener top track pattern	c				
fastener base track pattern	c				
stud attached to top track		yes			
double header		yes			
orientation	vertical			horizontal	horizontal

TL-93-105  
STC 45



G16\_WS90(406)\_CFS40\_RC13(610)\_G16

Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	40 mm of sprayed cellulose fibre insulation in cavity
4	resilient channels at 610 mm on centre
5	single layer of 16 mm type X gypsum board

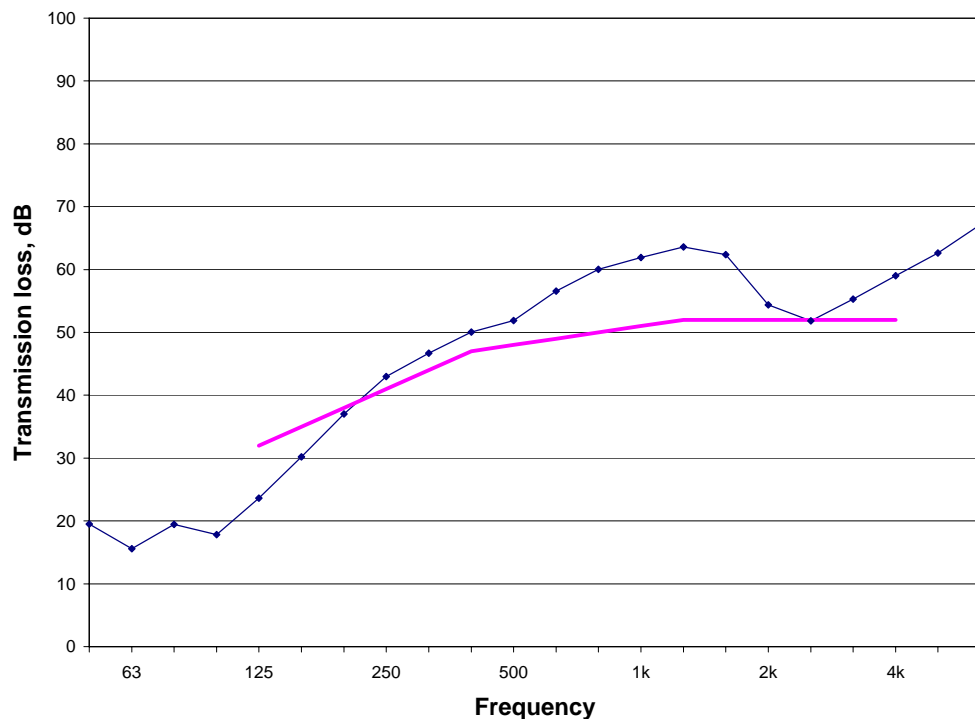


TestID	TL-93-144
STC	48
50 Hz	19.5
63 Hz	15.6
80 Hz	19.4
100 Hz	17.8
125 Hz	23.6
160 Hz	30.2
200 Hz	37.0
250 Hz	43.0
315 Hz	46.7
400 Hz	50.1
500 Hz	51.9
630 Hz	56.6
800 Hz	60.0
1000 Hz	61.9
1250 Hz	63.6
1600 Hz	62.4
2000 Hz	54.4
2500 Hz	51.9
3150 Hz	55.3
4000 Hz	59.0
5000 Hz	62.6
6300 Hz	67.2

TL-93-144

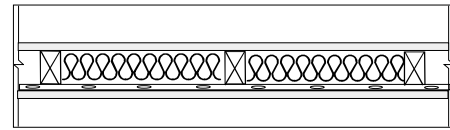
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	resilient	gypsum board
material	CX	wood	C1	G.P	CX
thickness mm	16	90	40	13	16
gauge					
spacing mm		406		610	
surface density kg/m <sup>2</sup>	11.0		2.8		11.1
linear density kg/m		1.6			
total weight kg	82.0	46.8	21.0	3.8	82.5
fastener spacing - edge mm	406				305
fastener spacing - field mm	406				305
fastener top track pattern	c				
fastener base track pattern	c				
stud attached to top track		yes			
double header		yes			
orientation	vertical			horizontal	horizontal

TL-93-144  
STC 48



G16\_WS90(406)\_GFB90\_RC13(610)\_G16

Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	resilient channels at 610 mm on centre
5	single layer of 16 mm type X gypsum board

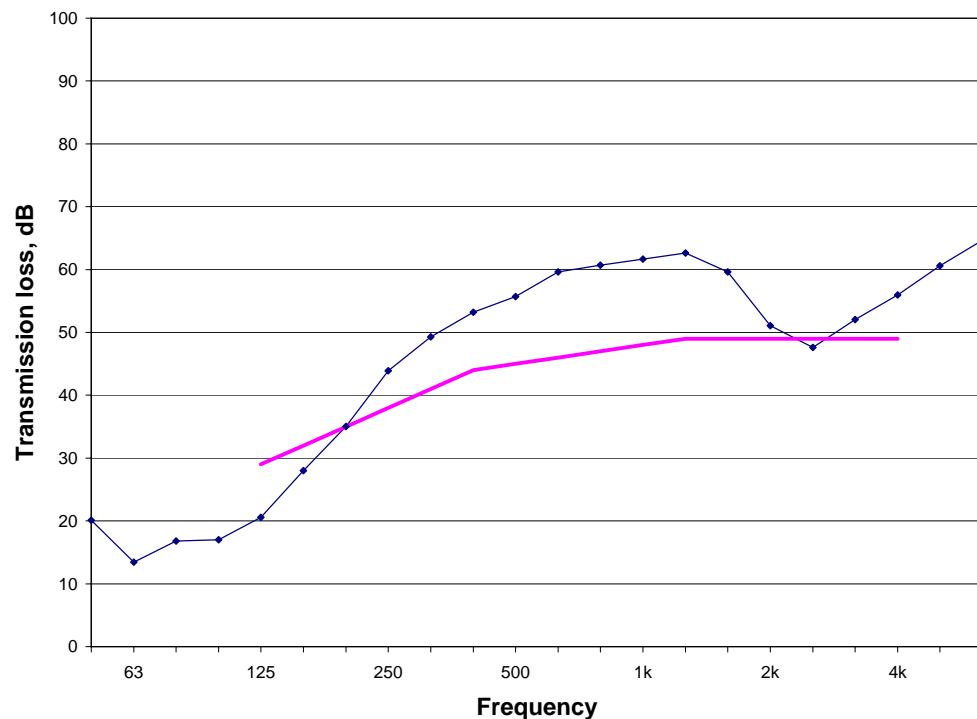


TestID	TL-93-109
STC	45
50 Hz	20.1
63 Hz	13.5
80 Hz	16.8
100 Hz	17.0
125 Hz	20.6
160 Hz	28.0
200 Hz	35.0
250 Hz	43.9
315 Hz	49.3
400 Hz	53.2
500 Hz	55.7
630 Hz	59.6
800 Hz	60.7
1000 Hz	61.7
1250 Hz	62.6
1600 Hz	59.6
2000 Hz	51.1
2500 Hz	47.6
3150 Hz	52.0
4000 Hz	56.0
5000 Hz	60.6
6300 Hz	64.6

TL-93-109

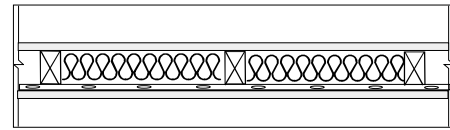
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	resilient	gypsum board
material	CX	wood	G1	G.P.	CX
thickness mm	16	90	90	13	16
gauge					
spacing mm		406		610	
surface density kg/m <sup>2</sup>	11.0		1.0		11.0
linear density kg/m		1.4			
total weight kg	81.4	40.7	7.6	3.8	81.6
fastener spacing - edge mm	406				305
fastener spacing - field mm	406				305
fastener top track pattern	c				
fastener base track pattern	c				
stud attached to top track		yes			
double header		yes			
orientation	vertical			horizontal	horizontal

TL-93-109  
STC 45



G16\_WS90(406)\_GFB90\_RC13(610)\_G16

Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	resilient channels at 610 mm on centre
5	single layer of 16 mm type X gypsum board

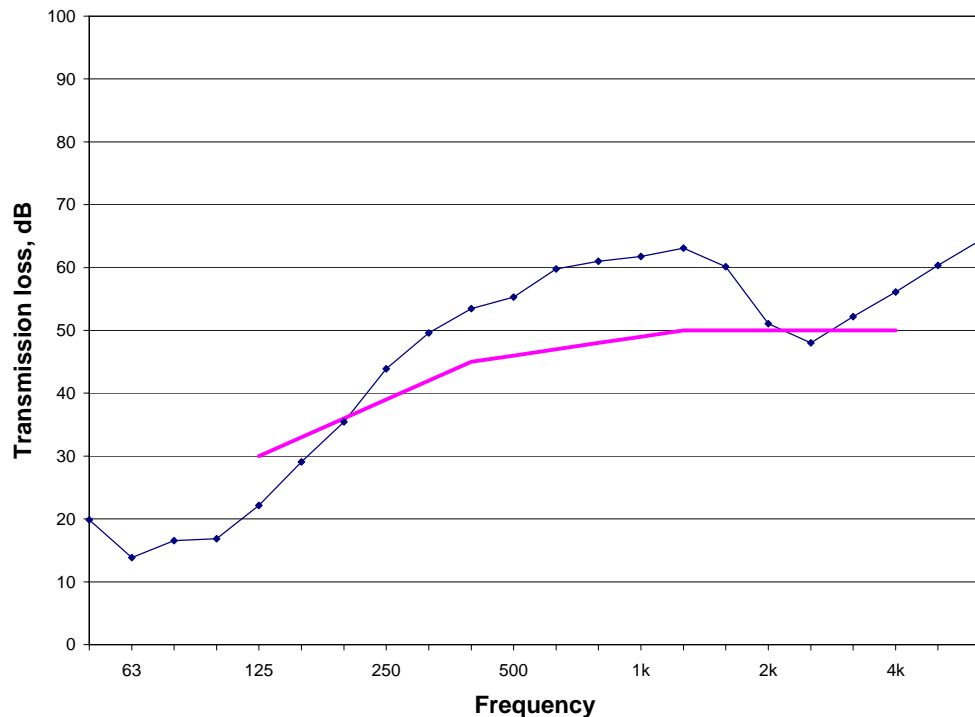


TestID	TL-93-110
STC	46
50 Hz	19.9
63 Hz	13.9
80 Hz	16.6
100 Hz	16.9
125 Hz	22.2
160 Hz	29.1
200 Hz	35.4
250 Hz	43.9
315 Hz	49.6
400 Hz	53.5
500 Hz	55.3
630 Hz	59.8
800 Hz	61.0
1000 Hz	61.8
1250 Hz	63.1
1600 Hz	60.1
2000 Hz	51.1
2500 Hz	48.0
3150 Hz	52.2
4000 Hz	56.1
5000 Hz	60.3
6300 Hz	64.4

TL-93-110

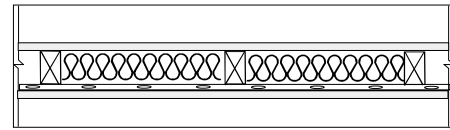
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	resilient	gypsum board
material	CX	wood	G1	G.P	CX
thickness mm	16	90	90	13	16
gauge					
spacing mm		406		610	
surface density kg/m <sup>2</sup>	11.1		1.0		11.0
linear density kg/m		1.4			
total weight kg	82.7	40.7	7.6	3.8	81.6
fastener spacing - edge mm	406				305
fastener spacing - field mm	406				305
fastener top track pattern	c				
fastener base track pattern	c				
stud attached to top track		yes			
double header		yes			
orientation	vertical			horizontal	vertical

TL-93-110  
STC 46



G16\_WS90(406)\_GFB90\_RC13(610)\_G16

Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	resilient channels at 610 mm on centre
5	single layer of 16 mm type X gypsum board

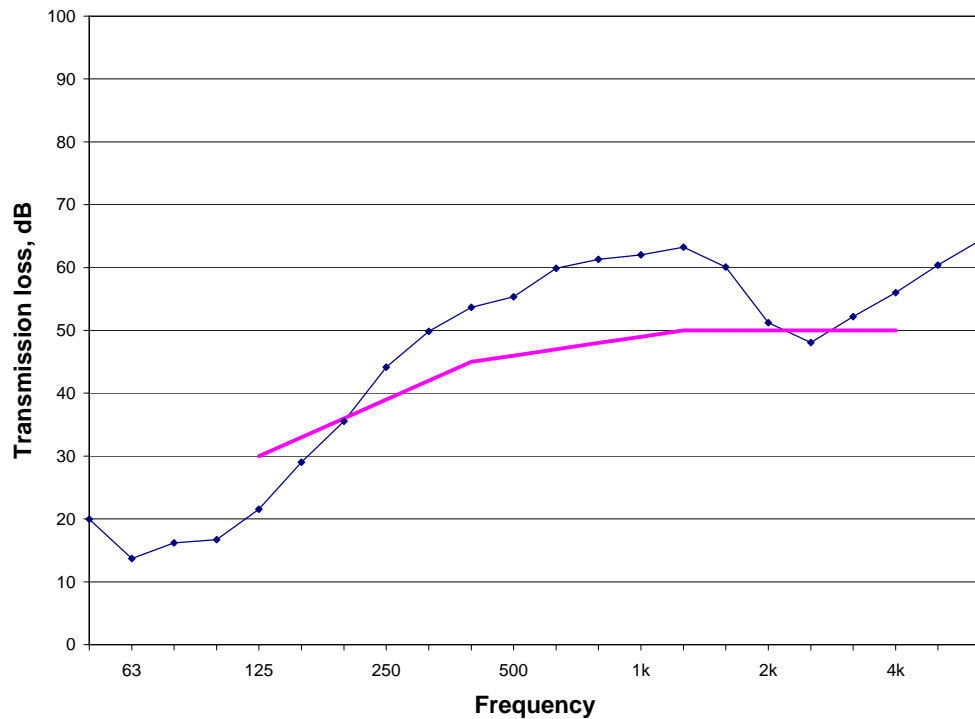


TestID	TL-93-111
STC	46
50 Hz	20.0
63 Hz	13.7
80 Hz	16.2
100 Hz	16.7
125 Hz	21.5
160 Hz	29.0
200 Hz	35.5
250 Hz	44.1
315 Hz	49.8
400 Hz	53.7
500 Hz	55.3
630 Hz	59.9
800 Hz	61.3
1000 Hz	62.0
1250 Hz	63.2
1600 Hz	60.1
2000 Hz	51.2
2500 Hz	48.1
3150 Hz	52.2
4000 Hz	56.0
5000 Hz	60.4
6300 Hz	64.3

TL-93-111

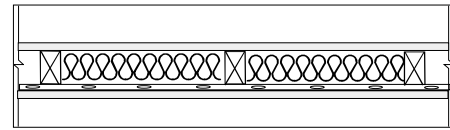
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	resilient	gypsum board
material	CX	wood	G1	G.P	CX
thickness mm	16	90	90	13	16
gauge					
spacing mm		406		610	
surface density kg/m <sup>2</sup>	11.1		1.0		11.0
linear density kg/m		1.4			
total weight kg	82.7	40.7	7.6	3.8	81.6
fastener spacing - edge mm	406				305
fastener spacing - field mm	406				305
fastener top track pattern	d				
fastener base track pattern	c				
stud attached to top track		yes			
double header		yes			
orientation	vertical			horizontal	horizontal

TL-93-111  
STC 46



G16\_WS90(406)\_GFB90\_RC13(610)\_G16

Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	resilient channels at 610 mm on centre
5	single layer of 16 mm type X gypsum board

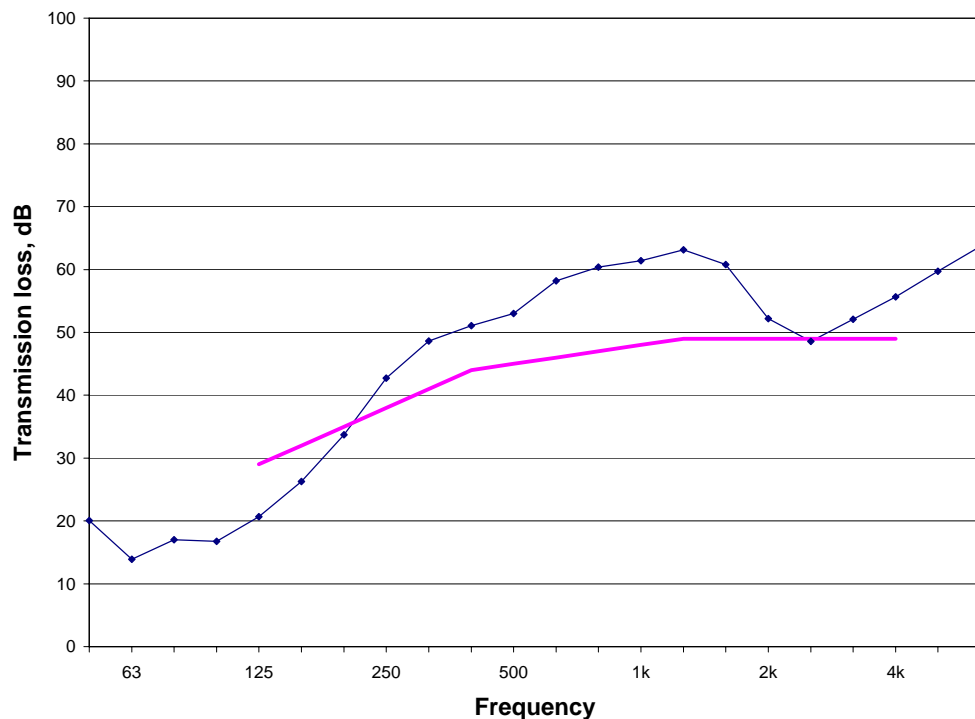


TestID	TL-93-112
STC	45
50 Hz	20.1
63 Hz	13.9
80 Hz	17.0
100 Hz	16.8
125 Hz	20.7
160 Hz	26.3
200 Hz	33.7
250 Hz	42.7
315 Hz	48.6
400 Hz	51.0
500 Hz	53.0
630 Hz	58.2
800 Hz	60.4
1000 Hz	61.4
1250 Hz	63.1
1600 Hz	60.8
2000 Hz	52.2
2500 Hz	48.6
3150 Hz	52.1
4000 Hz	55.7
5000 Hz	59.7
6300 Hz	63.7

TL-93-112

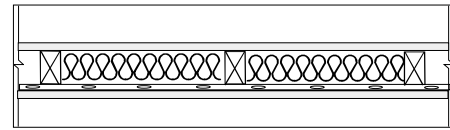
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	resilient	gypsum board
material	CX	wood	G1	P.M.	CX
thickness mm	16	90	90	13	16
gauge					
spacing mm		406		610	
surface density kg/m <sup>2</sup>	11.1		1.0		11.0
linear density kg/m		1.4			
total weight kg	82.7	40.7	7.6	3.8	81.9
fastener spacing - edge mm	406				305
fastener spacing - field mm	406				305
fastener top track pattern	c				
fastener base track pattern	c				
stud attached to top track		yes			
double header		yes			
orientation	vertical			horizontal	horizontal

TL-93-112  
STC 45



G16\_WS90(406)\_GFB90\_RC13(610)\_G16

Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	resilient channels at 610 mm on centre
5	single layer of 16 mm type X gypsum board

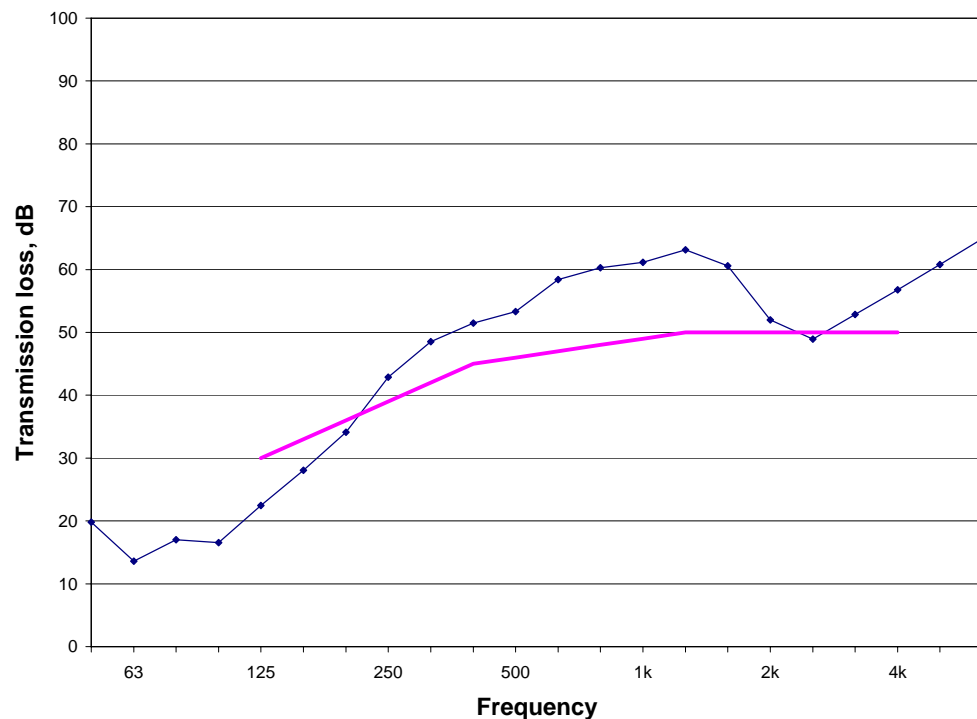


TestID	TL-93-113
STC	46
50 Hz	19.8
63 Hz	13.6
80 Hz	17.0
100 Hz	16.6
125 Hz	22.4
160 Hz	28.1
200 Hz	34.1
250 Hz	42.9
315 Hz	48.5
400 Hz	51.5
500 Hz	53.3
630 Hz	58.4
800 Hz	60.3
1000 Hz	61.2
1250 Hz	63.1
1600 Hz	60.6
2000 Hz	52.0
2500 Hz	48.9
3150 Hz	52.8
4000 Hz	56.8
5000 Hz	60.8
6300 Hz	64.9

TL-93-113

	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	resilient	gypsum board
material	CX	wood	G1	G.P	CX
thickness mm	16	90	90	13	16
gauge					
spacing mm		406		610	
surface density kg/m <sup>2</sup>	11.1		1.0		11.0
linear density kg/m		1.4			
total weight kg	82.7	40.7	7.6	3.8	81.9
fastener spacing - edge mm	406				305
fastener spacing - field mm	406				305
fastener top track pattern	c				
fastener base track pattern	c				
stud attached to top track		yes			
double header		yes			
orientation	vertical			horizontal	horizontal

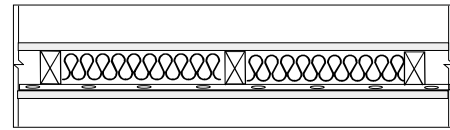
TL-93-113  
STC 46





G16\_WS90(406)\_GFB90\_RC13(610)\_G16

Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	resilient channels at 610 mm on centre
5	single layer of 16 mm type X gypsum board

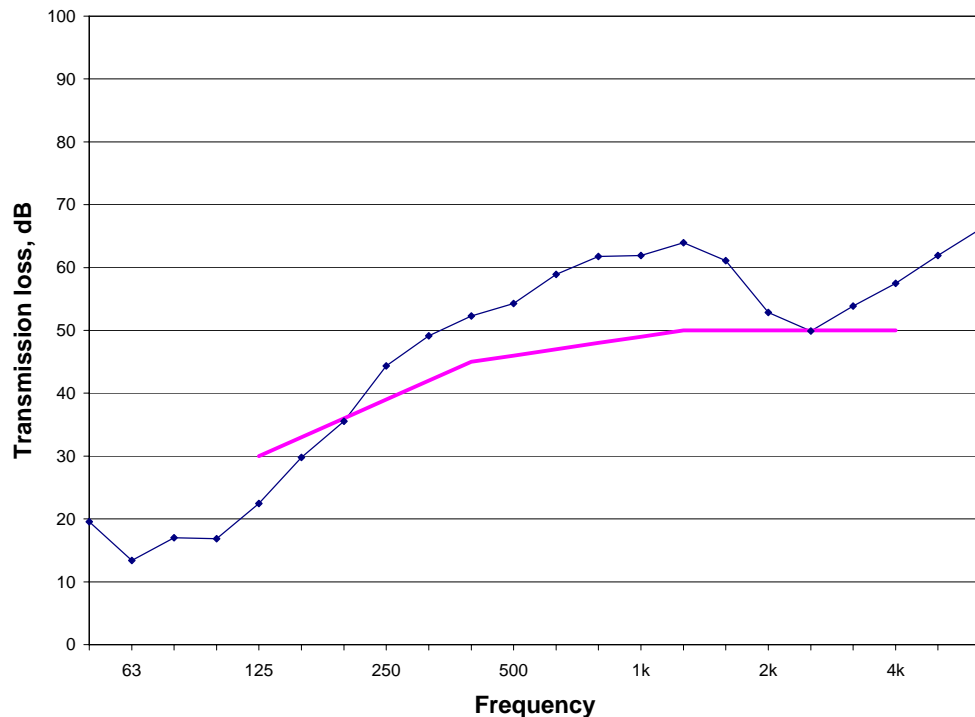


TestID	TL-93-123
STC	46
50 Hz	19.5
63 Hz	13.4
80 Hz	17.0
100 Hz	16.8
125 Hz	22.5
160 Hz	29.8
200 Hz	35.5
250 Hz	44.3
315 Hz	49.2
400 Hz	52.3
500 Hz	54.3
630 Hz	58.9
800 Hz	61.7
1000 Hz	61.9
1250 Hz	63.9
1600 Hz	61.1
2000 Hz	52.8
2500 Hz	49.9
3150 Hz	53.8
4000 Hz	57.5
5000 Hz	61.9
6300 Hz	66.1

TL-93-123

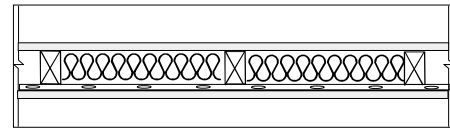
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	resilient	gypsum board
material	CX	wood	G2	G.P	CX
thickness mm	16	90	90	13	16
gauge					
spacing mm		406		610	
surface density kg/m <sup>2</sup>	11.0		1.3		11.3
linear density kg/m		1.4			
total weight kg	81.8	40.7	9.8	3.6	84.1
fastener spacing - edge mm	406				305
fastener spacing - field mm	406				305
fastener top track pattern	c				
fastener base track pattern	c				
stud attached to top track		yes			
double header		yes			
orientation	vertical			horizontal	horizontal

TL-93-123  
STC 46



G16\_WS90(406)\_MFB65\_RC13(610)\_G16

Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	65 mm of mineral fibre insulation in cavity
4	resilient channels at 610 mm on centre
5	single layer of 16 mm type X gypsum board

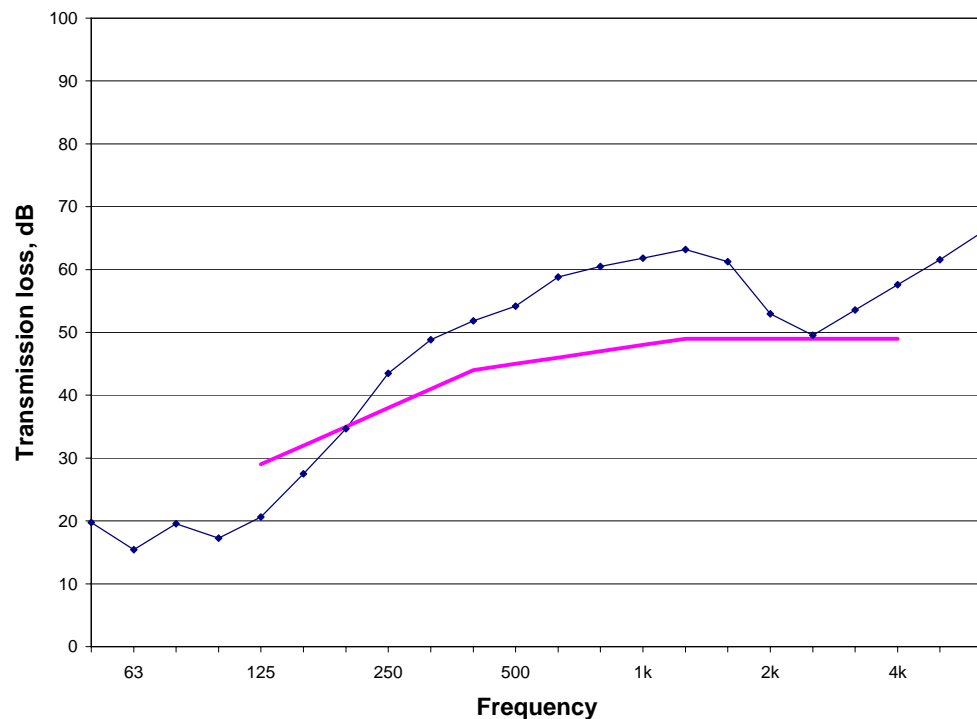


TestID	TL-93-152
STC	45
50 Hz	19.7
63 Hz	15.4
80 Hz	19.5
100 Hz	17.2
125 Hz	20.6
160 Hz	27.5
200 Hz	34.7
250 Hz	43.5
315 Hz	48.8
400 Hz	51.9
500 Hz	54.2
630 Hz	58.8
800 Hz	60.5
1000 Hz	61.8
1250 Hz	63.2
1600 Hz	61.3
2000 Hz	52.9
2500 Hz	49.6
3150 Hz	53.6
4000 Hz	57.6
5000 Hz	61.6
6300 Hz	66.0

TL-93-152

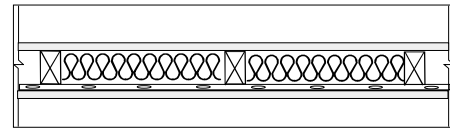
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	resilient	gypsum board
material	CX	wood	M1	G.P	CX
thickness mm	16	90	65	13	16
gauge					
spacing mm		406		610	
surface density kg/m <sup>2</sup>	11.0		2.2		11.1
linear density kg/m		1.6			
total weight kg	81.8	46.8	16.7	3.8	82.3
fastener spacing - edge mm	406				305
fastener spacing - field mm	406				305
fastener top track pattern	c				
fastener base track pattern	c				
stud attached to top track		yes			
double header		yes			
orientation	vertical			horizontal	horizontal

TL-93-152  
STC 45



G16\_WS90(406)\_MFB90\_RC13(610)\_G16

Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	90 mm of mineral fibre insulation in cavity
4	resilient channels at 610 mm on centre
5	single layer of 16 mm type X gypsum board

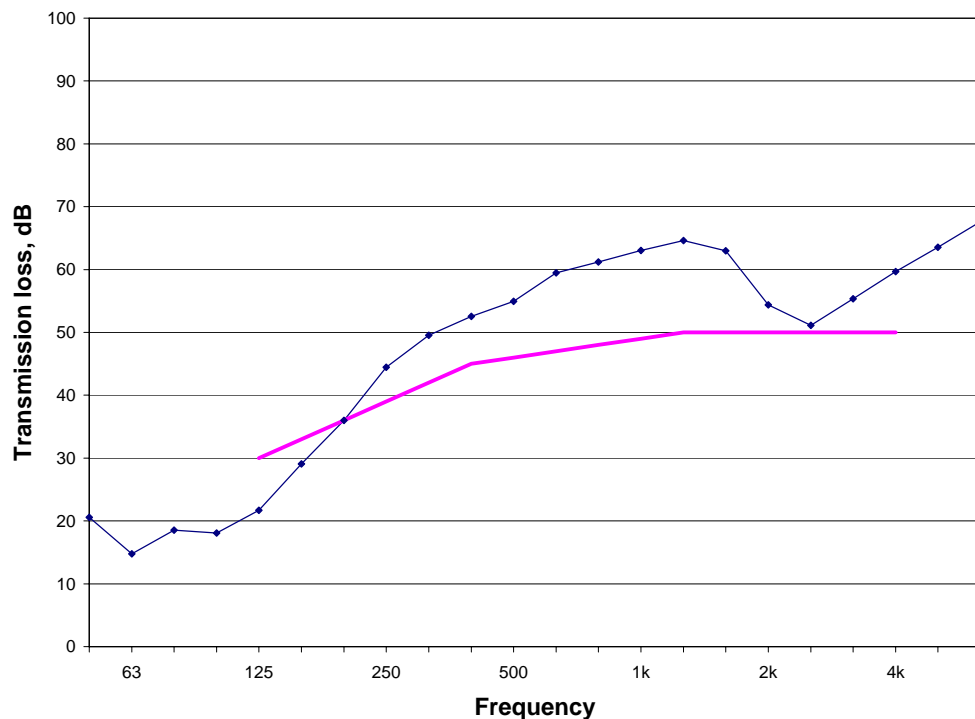


TestID	TL-93-156
STC	46
50 Hz	20.6
63 Hz	14.7
80 Hz	18.6
100 Hz	18.1
125 Hz	21.7
160 Hz	29.1
200 Hz	36.0
250 Hz	44.5
315 Hz	49.6
400 Hz	52.6
500 Hz	54.9
630 Hz	59.5
800 Hz	61.2
1000 Hz	63.0
1250 Hz	64.6
1600 Hz	63.0
2000 Hz	54.4
2500 Hz	51.1
3150 Hz	55.3
4000 Hz	59.7
5000 Hz	63.6
6300 Hz	67.6

TL-93-156

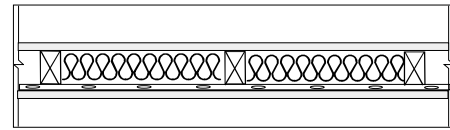
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	resilient	gypsum board
material	CX	wood	M1	G.P	CX
thickness mm	16	90	90	13	16
gauge					
spacing mm		406		610	
surface density kg/m <sup>2</sup>	11.0		2.3		11.1
linear density kg/m		1.6			
total weight kg	81.7	46.8	17.3	3.8	82.3
fastener spacing - edge mm	406				305
fastener spacing - field mm	406				305
fastener top track pattern	c				
fastener base track pattern	c				
stud attached to top track		yes			
double header		yes			
orientation	vertical			horizontal	horizontal

TL-93-156  
STC 46



G16\_WS90(610)\_GFB90\_RC13(406)\_G16

Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm wood studs at 610 mm on centre
3	90 mm of glass fibre insulation in cavity
4	resilient channels at 406 mm on centre
5	single layer of 16 mm type X gypsum board

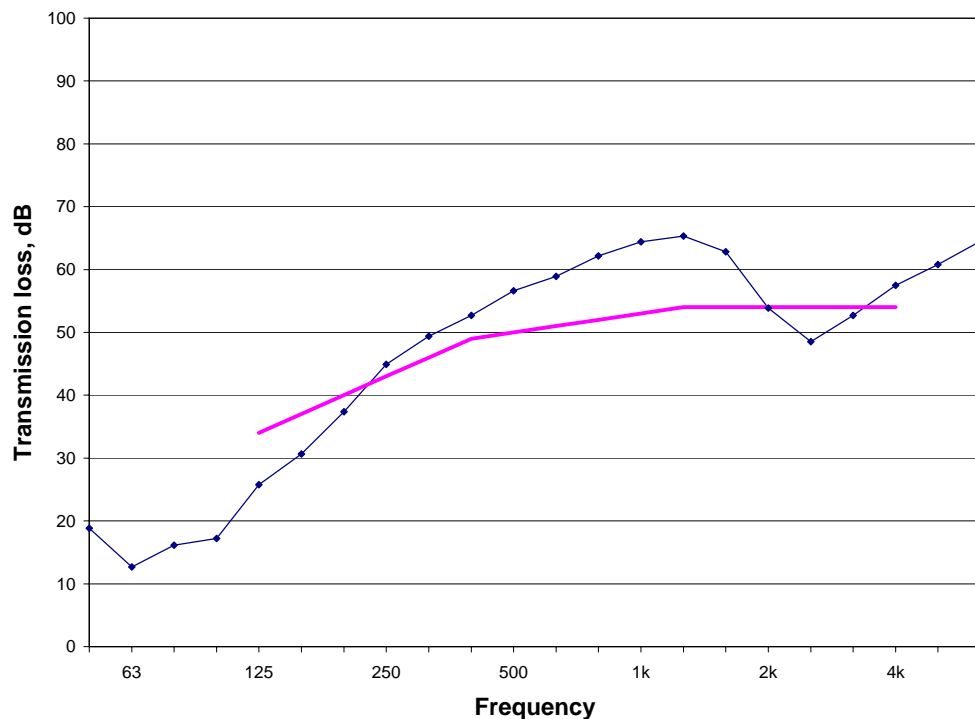


TestID	TL-93-098
STC	50
50 Hz	18.8
63 Hz	12.7
80 Hz	16.1
100 Hz	17.2
125 Hz	25.7
160 Hz	30.7
200 Hz	37.4
250 Hz	44.9
315 Hz	49.4
400 Hz	52.7
500 Hz	56.6
630 Hz	58.9
800 Hz	62.2
1000 Hz	64.4
1250 Hz	65.3
1600 Hz	62.8
2000 Hz	53.9
2500 Hz	48.5
3150 Hz	52.7
4000 Hz	57.5
5000 Hz	60.8
6300 Hz	64.5

TL-93-098

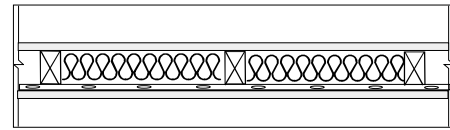
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	resilient	gypsum board
material	CX	wood	G1	G.P.	CX
thickness mm	16	90	90	13	16
gauge					
spacing mm		610		406	
surface density kg/m <sup>2</sup>	11.0		1.1		11.3
linear density kg/m		1.3			
total weight kg	82.0	29.1	8.0	5.3	83.6
fastener spacing - edge mm	305				305
fastener spacing - field mm	305				305
fastener top track pattern	c				
fastener base track pattern	c				
stud attached to top track		yes			
double header					
orientation	vertical			horizontal	horizontal

TL-93-098  
STC 50



G16\_WS90(610)\_GFB65\_RC13(610)\_G16

Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm wood studs at 610 mm on centre
3	65 mm of glass fibre insulation in cavity
4	resilient channels at 610 mm on centre
5	single layer of 16 mm type X gypsum board

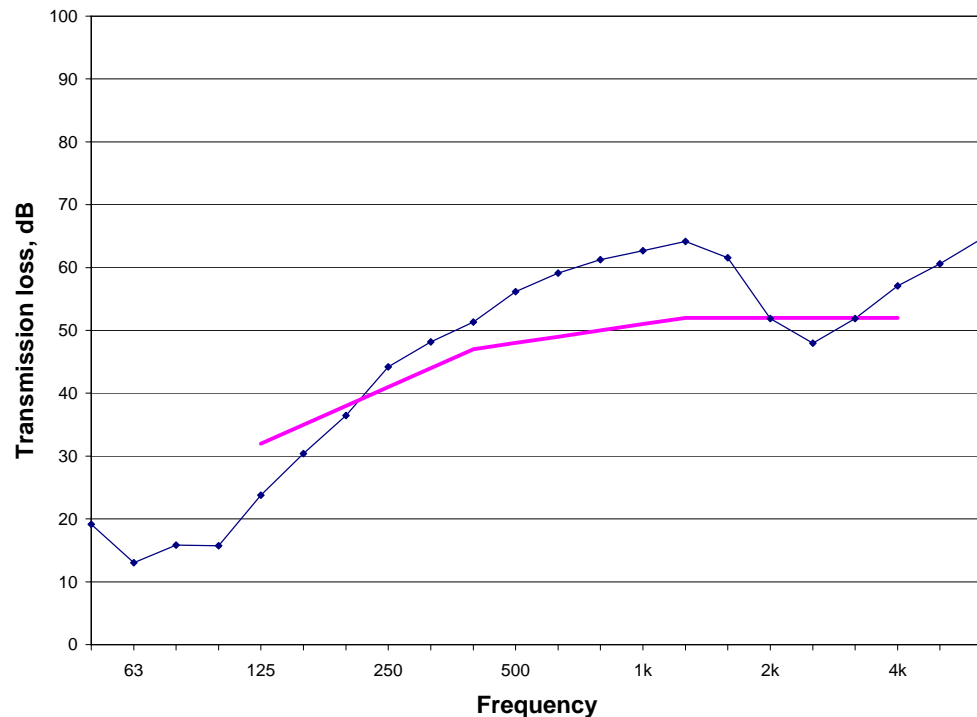


TestID	TL-93-087
STC	48
50 Hz	19.1
63 Hz	13.0
80 Hz	15.8
100 Hz	15.7
125 Hz	23.8
160 Hz	30.4
200 Hz	36.4
250 Hz	44.2
315 Hz	48.2
400 Hz	51.3
500 Hz	56.2
630 Hz	59.1
800 Hz	61.3
1000 Hz	62.7
1250 Hz	64.1
1600 Hz	61.6
2000 Hz	51.9
2500 Hz	48.0
3150 Hz	51.9
4000 Hz	57.1
5000 Hz	60.6
6300 Hz	64.7

TL-93-087

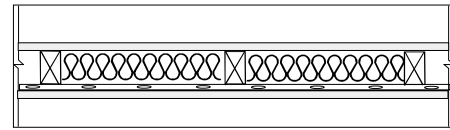
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	resilient	gypsum board
material	CX	wood	G1	G.P.	CX
thickness mm	16	90	65	13	16
gauge					
spacing mm		610		610	
surface density kg/m <sup>2</sup>	10.9		0.7		11.0
linear density kg/m		1.3			
total weight kg	80.8	29.1	5.2	3.8	81.6
fastener spacing - edge mm	305				305
fastener spacing - field mm	305				305
fastener top track pattern	c				
fastener base track pattern	c				
stud attached to top track		yes			
double header					
orientation	vertical			horizontal	horizontal

TL-93-087  
STC 48



G16\_WS90(610)\_GFB90\_RC13(610)\_G16

Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm wood studs at 610 mm on centre
3	90 mm of glass fibre insulation in cavity
4	resilient channels at 610 mm on centre
5	single layer of 16 mm type X gypsum board

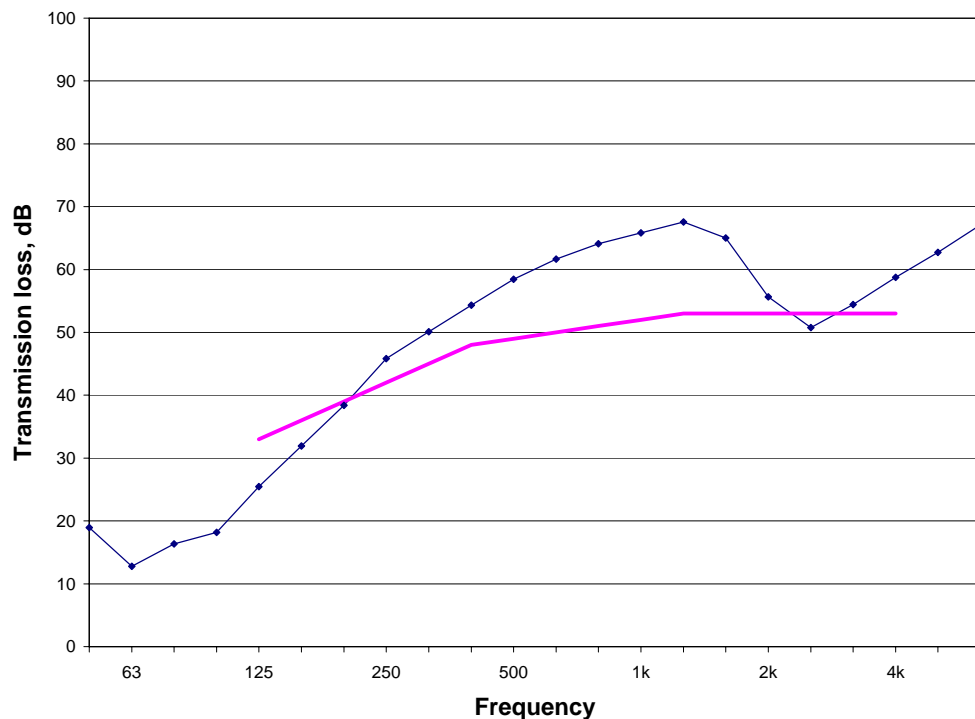


TestID	TL-93-082
STC	49
50 Hz	18.9
63 Hz	12.8
80 Hz	16.4
100 Hz	18.2
125 Hz	25.4
160 Hz	31.9
200 Hz	38.4
250 Hz	45.8
315 Hz	50.1
400 Hz	54.3
500 Hz	58.5
630 Hz	61.7
800 Hz	64.1
1000 Hz	65.8
1250 Hz	67.6
1600 Hz	65.0
2000 Hz	55.7
2500 Hz	50.7
3150 Hz	54.5
4000 Hz	58.8
5000 Hz	62.7
6300 Hz	67.1

TL-93-082

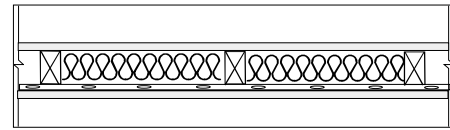
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	resilient	gypsum board
material	CX	wood	G1	G.P.	CX
thickness mm	16	90	90	13	16
gauge					
spacing mm		610		610	
surface density kg/m <sup>2</sup>	10.9		1.1		11.2
linear density kg/m		1.3			
total weight kg	81.3	29.1	8.0	3.8	83.0
fastener spacing - edge mm	305				305
fastener spacing - field mm	305				305
fastener top track pattern	c				
fastener base track pattern	c				
stud attached to top track		yes			
double header					
orientation	vertical			horizontal-inv	horizontal

TL-93-082  
STC 49



G16\_WS90(610)\_GFB90\_RC13(610)\_G16

Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm wood studs at 610 mm on centre
3	90 mm of glass fibre insulation in cavity
4	resilient channels at 610 mm on centre
5	single layer of 16 mm type X gypsum board

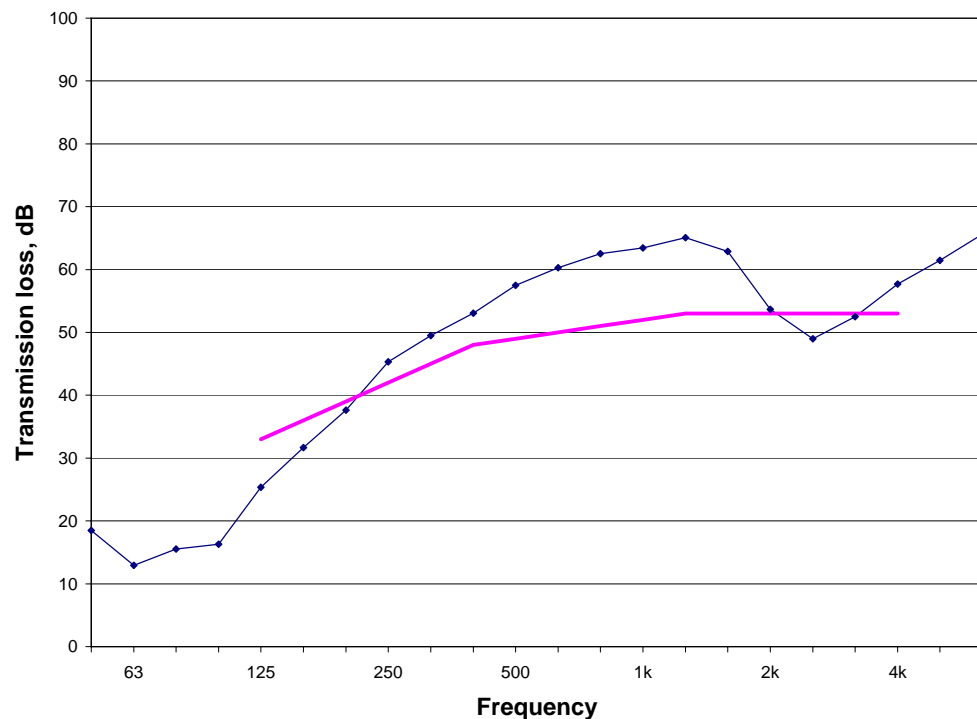


TestID	TL-93-083
STC	49
50 Hz	18.5
63 Hz	12.9
80 Hz	15.5
100 Hz	16.3
125 Hz	25.4
160 Hz	31.7
200 Hz	37.6
250 Hz	45.3
315 Hz	49.5
400 Hz	53.1
500 Hz	57.5
630 Hz	60.3
800 Hz	62.5
1000 Hz	63.4
1250 Hz	65.1
1600 Hz	62.9
2000 Hz	53.7
2500 Hz	49.0
3150 Hz	52.5
4000 Hz	57.7
5000 Hz	61.5
6300 Hz	65.6

TL-93-083

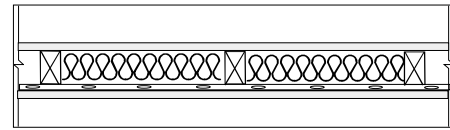
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	resilient	gypsum board
material	CX	wood	G1	G.P.	CX
thickness mm	16	90	90	13	16
gauge					
spacing mm		610		610	
surface density kg/m <sup>2</sup>	10.9		1.1		11.0
linear density kg/m		1.3			
total weight kg	81.3	29.1	8.0	3.8	81.6
fastener spacing - edge mm	305				305
fastener spacing - field mm	305				305
fastener top track pattern	c				
fastener base track pattern	c				
stud attached to top track		yes			
double header					
orientation	vertical			horizontal	horizontal

TL-93-083  
STC 49



G16\_WS90(610)\_GFB90\_RC13(610)\_G16

Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm wood studs at 610 mm on centre
3	90 mm of glass fibre insulation in cavity
4	resilient channels at 610 mm on centre
5	single layer of 16 mm type X gypsum board

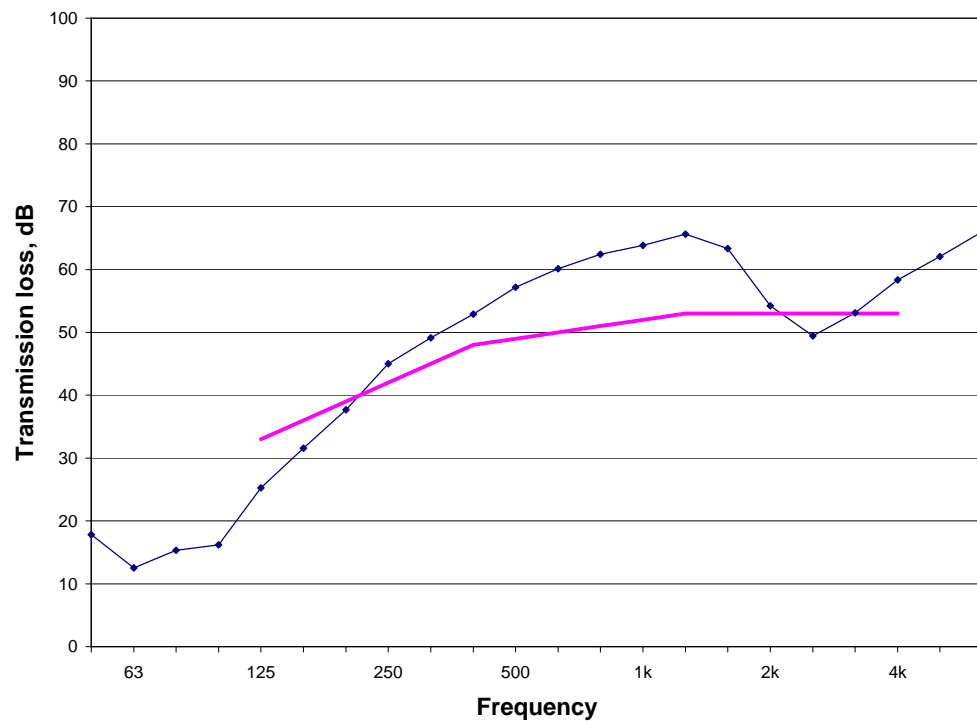


TestID	TL-93-084
STC	49
50 Hz	17.8
63 Hz	12.5
80 Hz	15.3
100 Hz	16.2
125 Hz	25.3
160 Hz	31.6
200 Hz	37.7
250 Hz	45.0
315 Hz	49.1
400 Hz	52.9
500 Hz	57.2
630 Hz	60.1
800 Hz	62.4
1000 Hz	63.9
1250 Hz	65.6
1600 Hz	63.4
2000 Hz	54.3
2500 Hz	49.5
3150 Hz	53.1
4000 Hz	58.3
5000 Hz	62.1
6300 Hz	66.0

TL-93-084

	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	resilient	gypsum board
material	CX	wood	G1	G.P.	CX
thickness mm	16	90	90	13	16
gauge					
spacing mm		610		610	
surface density kg/m <sup>2</sup>	10.9		1.1		11.0
linear density kg/m		1.3			
total weight kg	81.3	29.1	8.0	3.8	81.6
fastener spacing - edge mm	305				305
fastener spacing - field mm	305				305
fastener top track pattern	d				
fastener base track pattern	c				
stud attached to top track		yes			
double header					
orientation	vertical			horizontal	horizontal

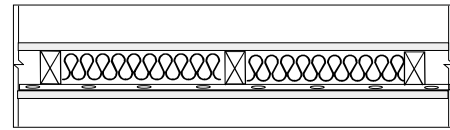
TL-93-084  
STC 49





G16\_WS90(610)\_GFB90\_RC13(610)\_G16

Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm wood studs at 610 mm on centre
3	90 mm of glass fibre insulation in cavity
4	resilient channels at 610 mm on centre
5	single layer of 16 mm type X gypsum board

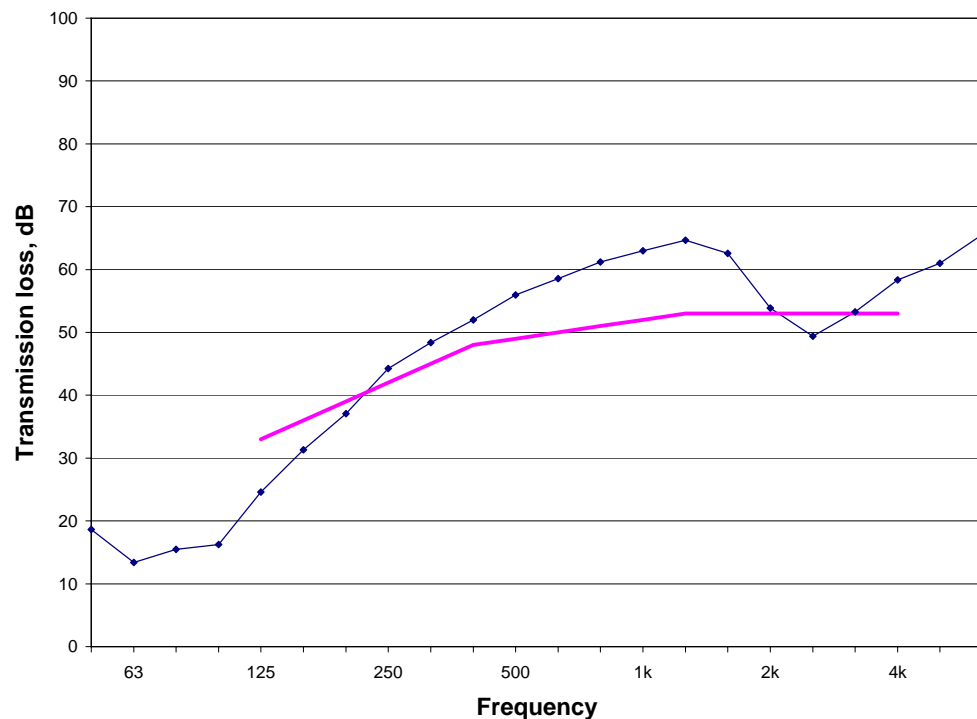


TestID	TL-93-088
STC	49
50 Hz	18.7
63 Hz	13.4
80 Hz	15.5
100 Hz	16.2
125 Hz	24.6
160 Hz	31.3
200 Hz	37.1
250 Hz	44.3
315 Hz	48.4
400 Hz	52.0
500 Hz	56.0
630 Hz	58.5
800 Hz	61.2
1000 Hz	63.0
1250 Hz	64.7
1600 Hz	62.6
2000 Hz	53.9
2500 Hz	49.4
3150 Hz	53.2
4000 Hz	58.4
5000 Hz	61.0
6300 Hz	65.6

TL-93-088

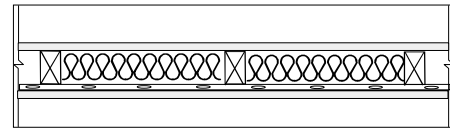
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	resilient	gypsum board
material	CX	wood	G2	G.P.	CX
thickness mm	16	90	90	13	16
gauge					
spacing mm		610		610	
surface density kg/m <sup>2</sup>	10.8		1.3		11.0
linear density kg/m		1.3			
total weight kg	80.6	29.1	9.9	3.8	81.6
fastener spacing - edge mm	305				305
fastener spacing - field mm	305				305
fastener top track pattern	c				
fastener base track pattern	c				
stud attached to top track		yes			
double header					
orientation	vertical			horizontal	horizontal

TL-93-088  
STC 49



G16\_WS90(610)\_GFB90\_RC13(610)\_G16

Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm wood studs at 610 mm on centre
3	90 mm of glass fibre insulation in cavity
4	resilient channels at 610 mm on centre
5	single layer of 16 mm type X gypsum board

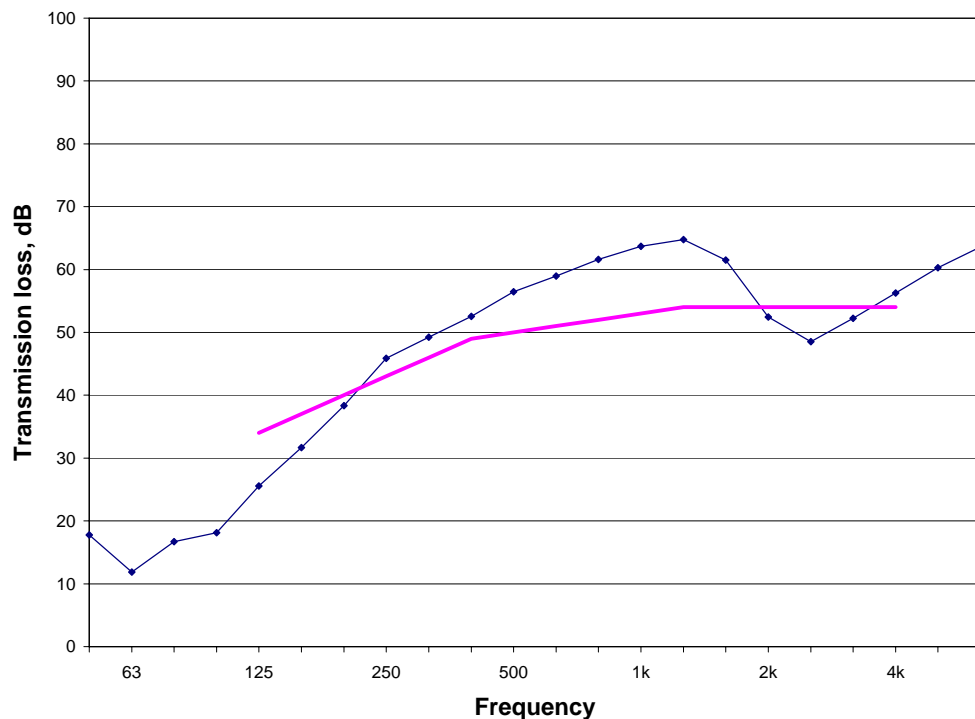


TestID	TL-93-103
STC	50
50 Hz	17.7
63 Hz	11.9
80 Hz	16.7
100 Hz	18.1
125 Hz	25.5
160 Hz	31.7
200 Hz	38.3
250 Hz	45.9
315 Hz	49.2
400 Hz	52.5
500 Hz	56.4
630 Hz	59.0
800 Hz	61.6
1000 Hz	63.7
1250 Hz	64.8
1600 Hz	61.5
2000 Hz	52.5
2500 Hz	48.5
3150 Hz	52.3
4000 Hz	56.3
5000 Hz	60.3
6300 Hz	63.6

TL-93-103

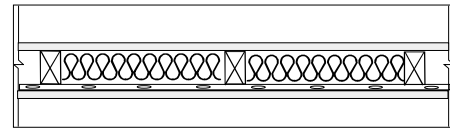
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	resilient	gypsum board
material	CX	wood	G1	G.P.	CX
thickness mm	16	90	90	13	16
gauge					
spacing mm		610		610	
surface density kg/m <sup>2</sup>	11.0		1.1		11.0
linear density kg/m		1.3			
total weight kg	82.0	29.1	8.0	3.7	82.0
fastener spacing - edge mm	305				305
fastener spacing - field mm	305				305
fastener top track pattern	c				
fastener base track pattern	c				
stud attached to top track		yes			
double header					
orientation	vertical			vertical	vertical

TL-93-103  
STC 50



G16\_WS90(610)\_GFB90\_RC13(610)\_G16

Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm wood studs at 610 mm on centre
3	90 mm of glass fibre insulation in cavity
4	resilient channels at 610 mm on centre
5	single layer of 16 mm type X gypsum board

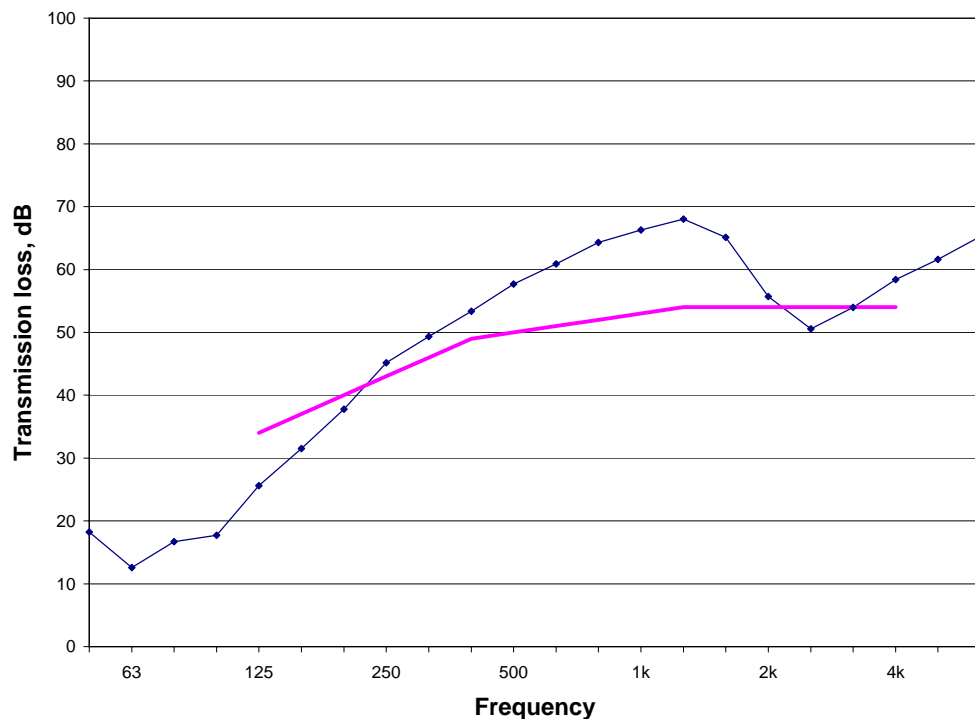


TestID	TL-93-196
STC	50
50 Hz	18.2
63 Hz	12.6
80 Hz	16.7
100 Hz	17.7
125 Hz	25.6
160 Hz	31.5
200 Hz	37.8
250 Hz	45.2
315 Hz	49.4
400 Hz	53.4
500 Hz	57.7
630 Hz	60.9
800 Hz	64.3
1000 Hz	66.3
1250 Hz	68.0
1600 Hz	65.1
2000 Hz	55.7
2500 Hz	50.5
3150 Hz	54.0
4000 Hz	58.4
5000 Hz	61.6
6300 Hz	65.3

TL-93-196

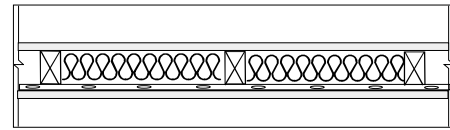
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	resilient	gypsum board
material	CX	wood	G1	G.P.	CX
thickness mm	16	90	90	13	16
gauge					
spacing mm		610		610	
surface density kg/m <sup>2</sup>	11.2		1.1		11.2
linear density kg/m		1.6			
total weight kg	83.3	35.3	8.0	3.8	83.3
fastener spacing - edge mm	305				305
fastener spacing - field mm	305				305
fastener top track pattern	c				
fastener base track pattern	c				
stud attached to top track		yes			
double header		yes			
orientation	vertical			horizontal	horizontal

TL-93-196  
STC 50



G16\_WS90(610)\_GFB90\_RC13(610)\_G16

Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm wood studs at 610 mm on centre
3	90 mm of glass fibre insulation in cavity
4	resilient channels at 610 mm on centre
5	single layer of 16 mm type X gypsum board

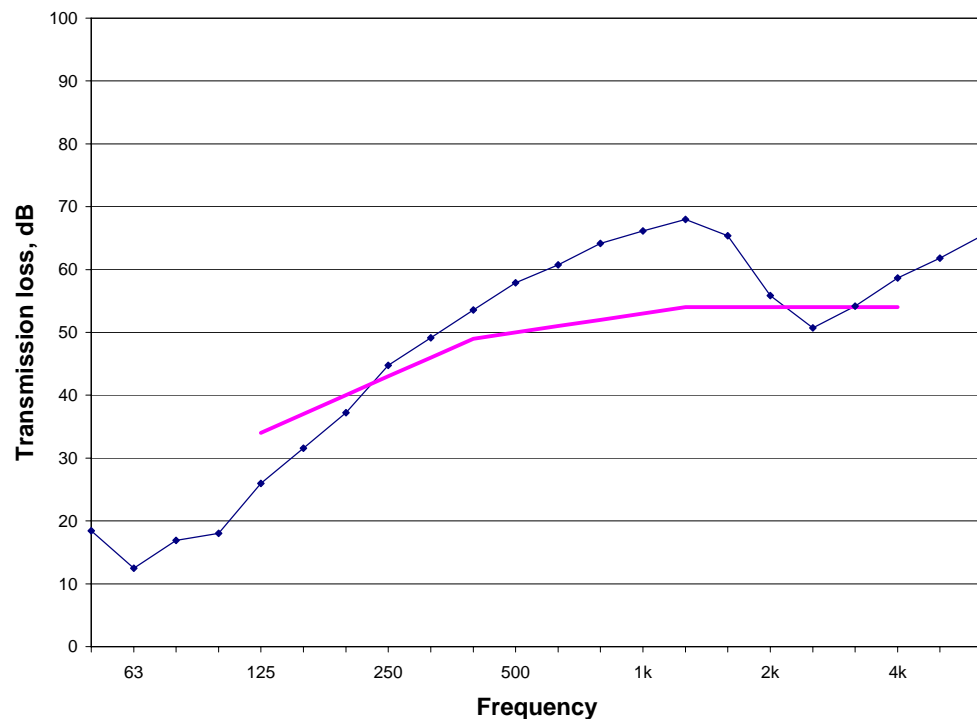


TestID	TL-93-197
STC	50
50 Hz	18.4
63 Hz	12.5
80 Hz	16.9
100 Hz	18.0
125 Hz	26.0
160 Hz	31.5
200 Hz	37.2
250 Hz	44.7
315 Hz	49.2
400 Hz	53.6
500 Hz	57.9
630 Hz	60.8
800 Hz	64.2
1000 Hz	66.1
1250 Hz	68.0
1600 Hz	65.4
2000 Hz	55.8
2500 Hz	50.7
3150 Hz	54.2
4000 Hz	58.7
5000 Hz	61.8
6300 Hz	65.4

TL-93-197

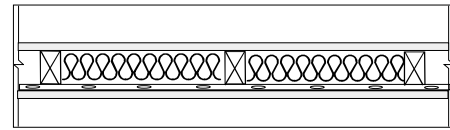
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	resilient	gypsum board
material	CX	wood	G1	G.P.	CX
thickness mm	16	90	90	13	16
gauge					
spacing mm		610		610	
surface density kg/m <sup>2</sup>	11.2		1.1		11.2
linear density kg/m		1.6			
total weight kg	83.3	35.3	8.0	3.8	83.3
fastener spacing - edge mm	305				305
fastener spacing - field mm	305				305
fastener top track pattern	a				
fastener base track pattern	a				
stud attached to top track		yes			
double header		yes			
orientation	vertical			horizontal	horizontal

TL-93-197  
STC 50



G16\_WS90(610)\_MFB90\_RC13(610)\_G16

Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm wood studs at 610 mm on centre
3	90 mm of mineral fibre insulation in cavity
4	resilient channels at 610 mm on centre
5	single layer of 16 mm type X gypsum board

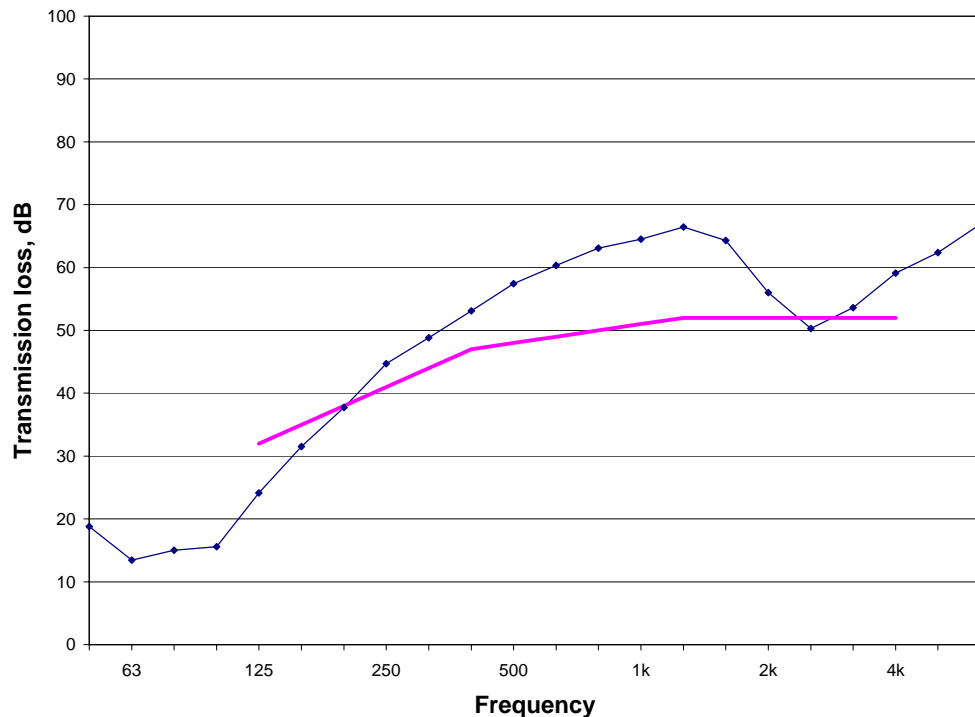


TestID	TL-93-090
STC	48
50 Hz	18.8
63 Hz	13.5
80 Hz	15.0
100 Hz	15.6
125 Hz	24.1
160 Hz	31.5
200 Hz	37.7
250 Hz	44.7
315 Hz	48.8
400 Hz	53.1
500 Hz	57.4
630 Hz	60.3
800 Hz	63.1
1000 Hz	64.5
1250 Hz	66.4
1600 Hz	64.3
2000 Hz	56.0
2500 Hz	50.3
3150 Hz	53.6
4000 Hz	59.1
5000 Hz	62.4
6300 Hz	66.9

TL-93-090

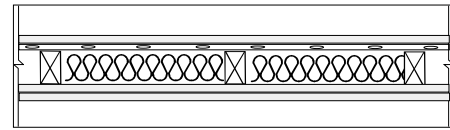
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	resilient	gypsum board
material	CX	wood	M1	G.P.	CX
thickness mm	16	90	90	13	16
gauge					
spacing mm		610		610	
surface density kg/m <sup>2</sup>	10.8		2.7		10.9
linear density kg/m		1.3			
total weight kg	80.6	29.1	20.2	3.8	81.0
fastener spacing - edge mm	305				305
fastener spacing - field mm	305				305
fastener top track pattern	c				
fastener base track pattern	c				
stud attached to top track		yes			
double header					
orientation	vertical			horizontal	horizontal

TL-93-090  
STC 48



G13\_RC13(610)\_WS90(406)\_GFB90\_2G13

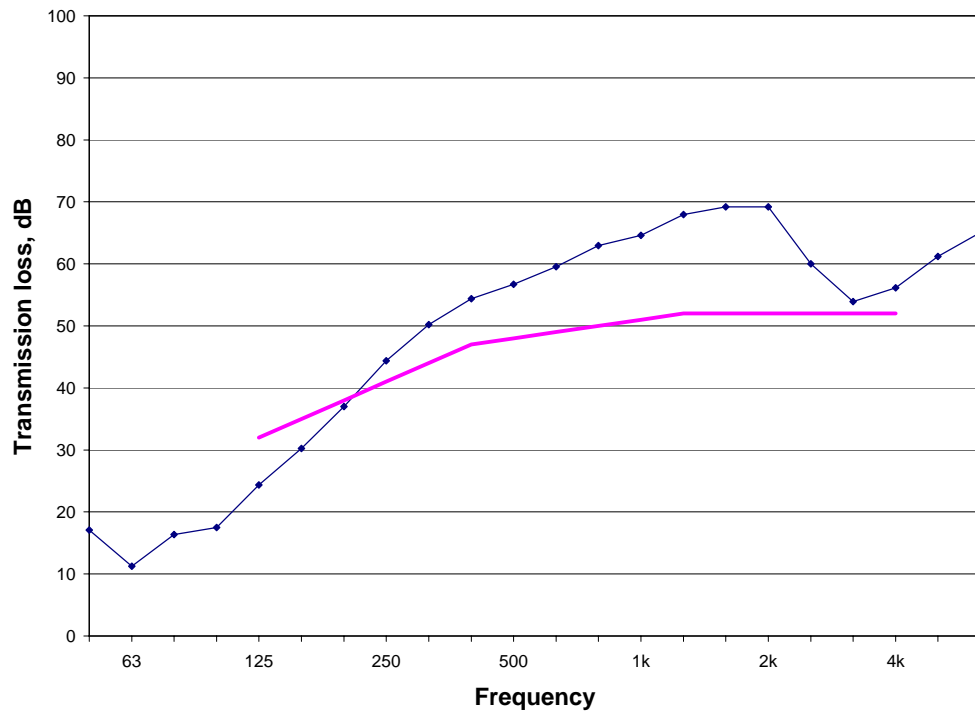
Element	Description:
1	single layer of 13 mm gypsum board
2	resilient channels at 610 mm on centre
3	90 mm wood studs at 406 mm on centre
4	90 mm of glass fibre insulation in cavity
5	single layer of 13 mm gypsum board
6	single layer of 13 mm gypsum board



TestID	TL-94-002
STC	48
50 Hz	17.1
63 Hz	11.2
80 Hz	16.4
100 Hz	17.5
125 Hz	24.4
160 Hz	30.2
200 Hz	37.0
250 Hz	44.4
315 Hz	50.2
400 Hz	54.4
500 Hz	56.7
630 Hz	59.5
800 Hz	63.0
1000 Hz	64.6
1250 Hz	68.0
1600 Hz	69.2
2000 Hz	69.2
2500 Hz	60.0
3150 Hz	53.9
4000 Hz	56.1
5000 Hz	61.2
6300 Hz	65.1

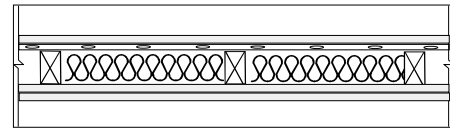
TL-94-002	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	resilient	stud	insulation	gypsum board	gypsum board
material	BL	G.P.	wood	G1	BL	BL
thickness mm	13	13	90	90	13	13
gauge						
spacing mm		610	406			
surface density kg/m <sup>2</sup>	7.2			1.1	7.3	7.2
linear density kg/m			1.4			
total weight kg	53.7	4.0	41.0	7.8	54.3	53.6
fastener spacing - edge mm	305				610	406
fastener spacing - field mm	305				610	406
fastener top track pattern					c	c
fastener base track pattern					c	c
stud attached to top track			yes			
double header			yes			
orientation	horizontal	horizontal			vertical	vertical

TL-94-002  
STC 48



G13\_RC13(610)\_WS90(406)\_GFB90\_2G13

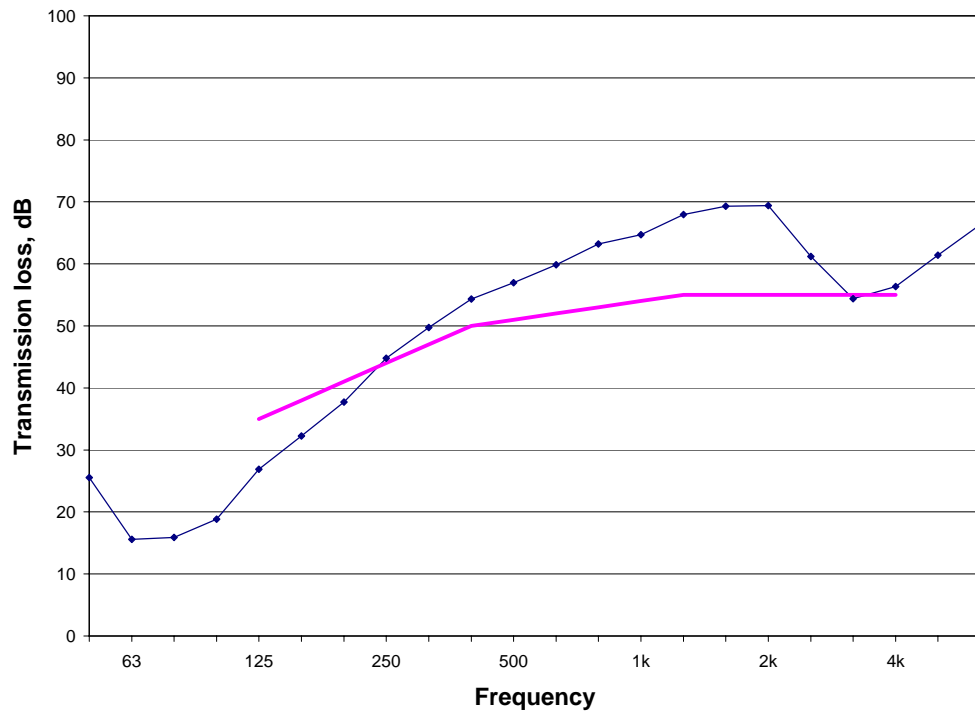
Element	Description:
1	single layer of 13 mm gypsum board
2	resilient channels at 610 mm on centre
3	90 mm wood studs at 406 mm on centre
4	90 mm of glass fibre insulation in cavity
5	single layer of 13 mm gypsum board
6	single layer of 13 mm gypsum board



TestID	TL-94-003
STC	51
50 Hz	25.5
63 Hz	15.6
80 Hz	15.9
100 Hz	18.8
125 Hz	26.9
160 Hz	32.3
200 Hz	37.7
250 Hz	44.8
315 Hz	49.7
400 Hz	54.3
500 Hz	57.0
630 Hz	59.9
800 Hz	63.2
1000 Hz	64.7
1250 Hz	68.0
1600 Hz	69.3
2000 Hz	69.4
2500 Hz	61.2
3150 Hz	54.4
4000 Hz	56.3
5000 Hz	61.4
6300 Hz	66.4

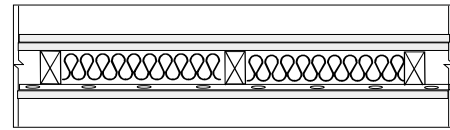
TL-94-003	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	resilient	stud	insulation	gypsum board	gypsum board
material	BL	G.P.	wood	G1	BL	BL
thickness mm	13	13	90	90	13	13
gauge						
spacing mm		610	406			
surface density kg/m <sup>2</sup>	7.2			1.1	7.3	7.2
linear density kg/m			1.4			
total weight kg	53.7	4.0	41.0	7.8	54.3	53.6
fastener spacing - edge mm	305				610	406
fastener spacing - field mm	305				610	406
fastener top track pattern					c	c
fastener base track pattern					c	c
stud attached to top track			yes			
double header			yes			
orientation	horizontal	horizontal			vertical	vertical

TL-94-003  
STC 51



2G16\_WS90(406)\_GFB90\_RC13(406)\_G16

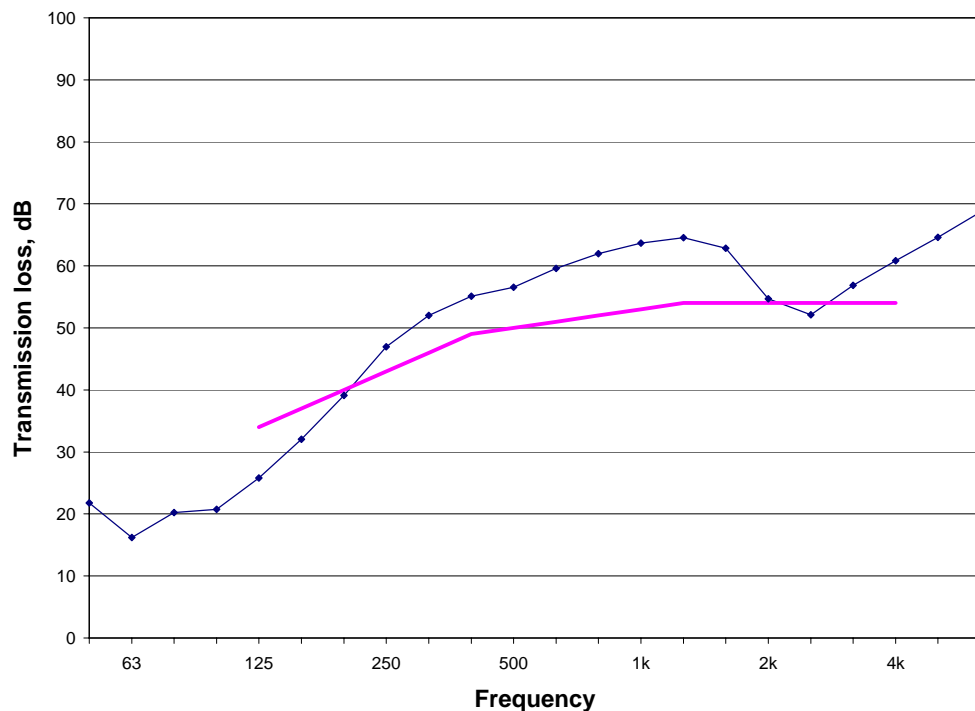
Element	Description:
1	single layer of 16 mm type X gypsum board
2	single layer of 16 mm type X gypsum board
3	90 mm wood studs at 406 mm on centre
4	90 mm of glass fibre insulation in cavity
5	resilient channels at 406 mm on centre
6	single layer of 16 mm type X gypsum board



TestID	TL-93-120
STC	50
50 Hz	21.8
63 Hz	16.2
80 Hz	20.2
100 Hz	20.7
125 Hz	25.8
160 Hz	32.0
200 Hz	39.1
250 Hz	47.0
315 Hz	52.0
400 Hz	55.1
500 Hz	56.6
630 Hz	59.6
800 Hz	62.0
1000 Hz	63.7
1250 Hz	64.5
1600 Hz	62.8
2000 Hz	54.7
2500 Hz	52.1
3150 Hz	56.8
4000 Hz	60.8
5000 Hz	64.6
6300 Hz	68.7

TL-93-120	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	gypsum board	stud	insulation	resilient	gypsum board
material	CX	CX	wood	G1	G.P	CX
thickness mm	16	16	90	90	13	16
gauge						
spacing mm			406		406	
surface density kg/m <sup>2</sup>	10.8	11.1		1.0		11.1
linear density kg/m			1.4			
total weight kg	80.6	82.7	40.7	7.6	5.3	82.6
fastener spacing - edge mm	406	610				305
fastener spacing - field mm	406	610				305
fastener top track pattern	c	c				
fastener base track pattern	c	c				
stud attached to top track			yes			
double header			yes			
orientation	vertical	vertical			horizontal	horizontal

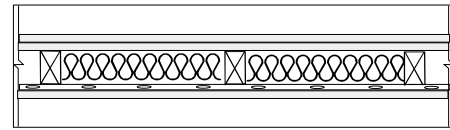
TL-93-120  
STC 50





2G16\_WS90(406)\_GFB90\_RC13(610)\_G16

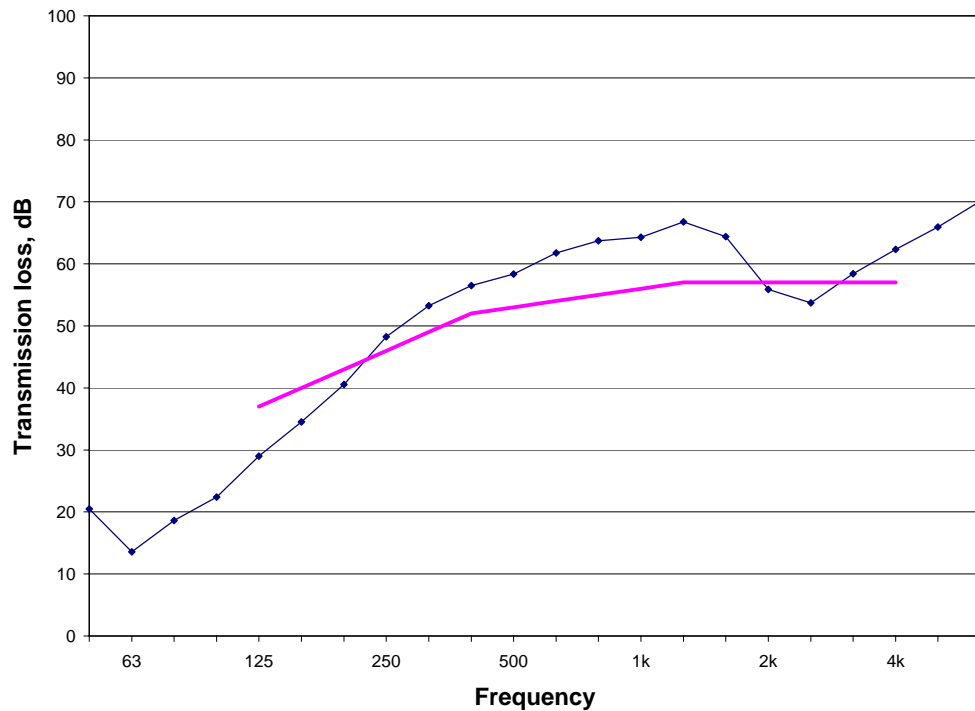
Element	Description:
1	single layer of 16 mm type X gypsum board
2	single layer of 16 mm type X gypsum board
3	90 mm wood studs at 406 mm on centre
4	90 mm of glass fibre insulation in cavity
5	resilient channels at 610 mm on centre
6	single layer of 16 mm type X gypsum board



TestID	TL-93-116
STC	53
50 Hz	20.5
63 Hz	13.6
80 Hz	18.6
100 Hz	22.4
125 Hz	29.0
160 Hz	34.5
200 Hz	40.6
250 Hz	48.3
315 Hz	53.2
400 Hz	56.5
500 Hz	58.3
630 Hz	61.7
800 Hz	63.7
1000 Hz	64.3
1250 Hz	66.8
1600 Hz	64.4
2000 Hz	55.9
2500 Hz	53.7
3150 Hz	58.4
4000 Hz	62.3
5000 Hz	66.0
6300 Hz	70.1

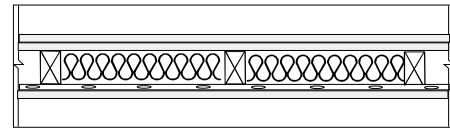
TL-93-116	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	gypsum board	stud	insulation	resilient	gypsum board
material	CX	CX	wood	G1	G.P	CX
thickness mm	16	16	90	90	13	16
gauge						
spacing mm			406		610	
surface density kg/m <sup>2</sup>	10.8	11.1		1.0		11.0
linear density kg/m			1.4			
total weight kg	80.5	82.7	40.7	7.6	3.8	81.9
fastener spacing - edge mm	406	610				305
fastener spacing - field mm	406	610				305
fastener top track pattern	c	c				
fastener base track pattern	c	c				
stud attached to top track			yes			
double header			yes			
orientation	vertical	vertical			horizontal	horizontal

TL-93-116  
STC 53



2G16\_WS90(610)\_GFB90\_RC13(406)\_G16

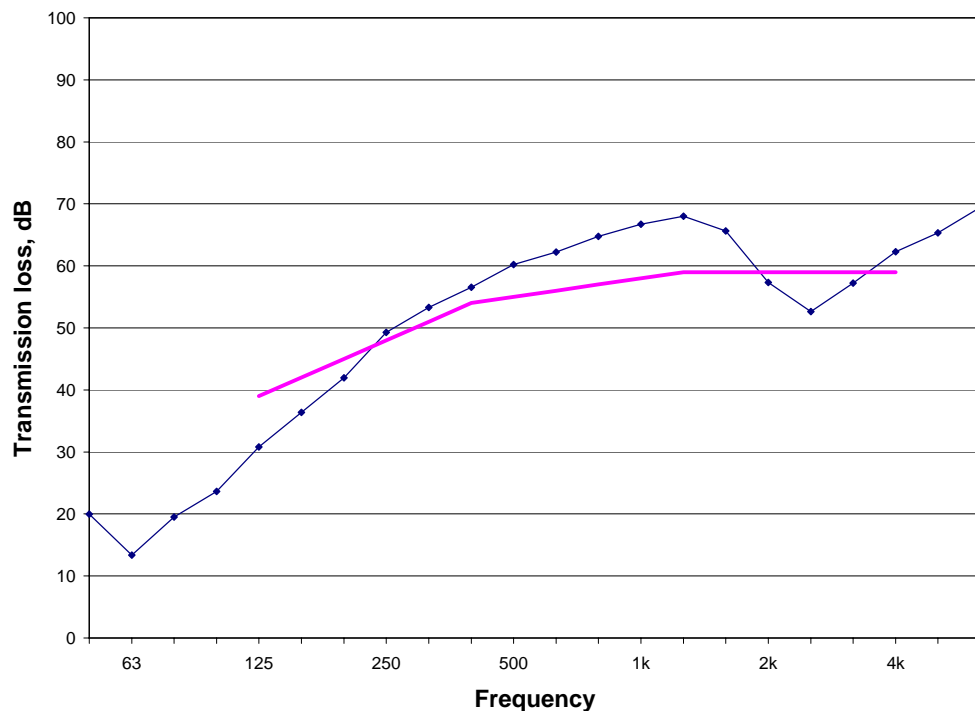
Element	Description:
1	single layer of 16 mm type X gypsum board
2	single layer of 16 mm type X gypsum board
3	90 mm wood studs at 610 mm on centre
4	90 mm of glass fibre insulation in cavity
5	resilient channels at 406 mm on centre
6	single layer of 16 mm type X gypsum board



TestID	TL-93-101
STC	55
50 Hz	20.0
63 Hz	13.3
80 Hz	19.5
100 Hz	23.6
125 Hz	30.8
160 Hz	36.4
200 Hz	41.9
250 Hz	49.3
315 Hz	53.3
400 Hz	56.6
500 Hz	60.2
630 Hz	62.2
800 Hz	64.7
1000 Hz	66.7
1250 Hz	68.0
1600 Hz	65.6
2000 Hz	57.3
2500 Hz	52.6
3150 Hz	57.2
4000 Hz	62.3
5000 Hz	65.3
6300 Hz	69.4

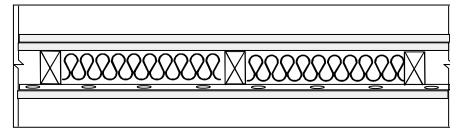
TL-93-101	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	gypsum board	stud	insulation	resilient	gypsum board
material	CX	CX	wood	G1	G.P.	CX
thickness mm	16	16	90	90	13	16
gauge						
spacing mm			610		406	
surface density kg/m <sup>2</sup>	10.9	11.0		1.1		11.3
linear density kg/m			1.3			
total weight kg	81.1	82.0	29.1	8.0	5.3	83.6
fastener spacing - edge mm	305	610				305
fastener spacing - field mm	305	610				305
fastener top track pattern	c	c				
fastener base track pattern	c	c				
stud attached to top track			yes			
double header						
orientation	vertical	vertical			horizontal	horizontal

TL-93-101  
STC 55



2G16\_WS90(610)\_GFB90\_RC13(610)\_G16

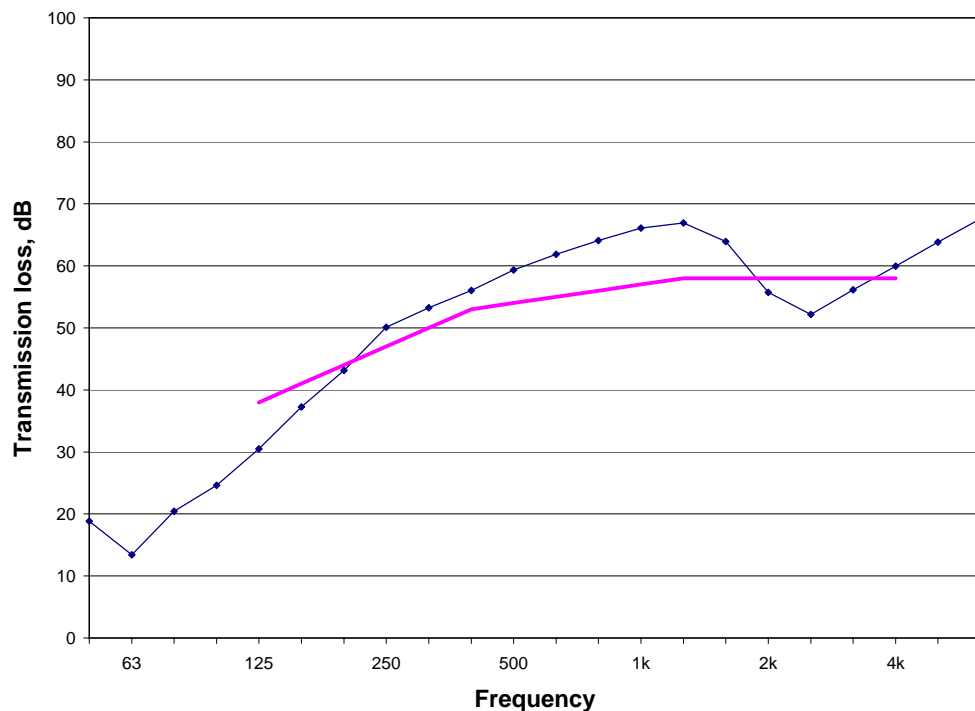
Element	Description:
1	single layer of 16 mm type X gypsum board
2	single layer of 16 mm type X gypsum board
3	90 mm wood studs at 610 mm on centre
4	90 mm of glass fibre insulation in cavity
5	resilient channels at 610 mm on centre
6	single layer of 16 mm type X gypsum board



TestID	TL-93-102
STC	54
50 Hz	18.8
63 Hz	13.4
80 Hz	20.4
100 Hz	24.6
125 Hz	30.5
160 Hz	37.2
200 Hz	43.2
250 Hz	50.1
315 Hz	53.3
400 Hz	56.0
500 Hz	59.3
630 Hz	61.9
800 Hz	64.1
1000 Hz	66.1
1250 Hz	66.9
1600 Hz	63.9
2000 Hz	55.7
2500 Hz	52.2
3150 Hz	56.2
4000 Hz	60.0
5000 Hz	63.8
6300 Hz	67.6

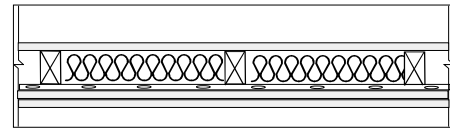
TL-93-102	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	gypsum board	stud	insulation	resilient	gypsum board
material	CX	CX	wood	G1	G.P.	CX
thickness mm	16	16	90	90	13	16
gauge						
spacing mm			610		610	
surface density kg/m <sup>2</sup>	10.9	11.0		1.1		11.0
linear density kg/m			1.3			
total weight kg	81.1	82.0	29.1	8.0	3.7	82.0
fastener spacing - edge mm	305	610				305
fastener spacing - field mm	305	610				305
fastener top track pattern	c	c				
fastener base track pattern	c	c				
stud attached to top track			yes			
double header						
orientation	vertical	vertical			horizontal	vertical

TL-93-102  
STC 54



G13\_WS90(406)\_CFL90\_RC13(610)\_2G13

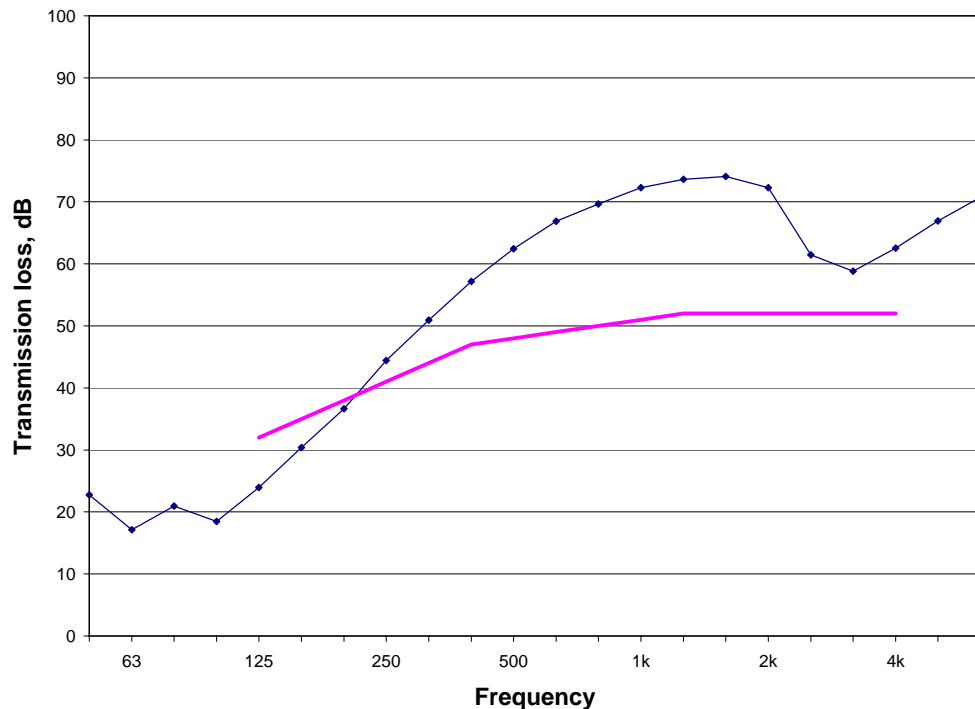
Element	Description:
1	single layer of 13 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	90 mm of blown cellulose fibre insulation in cavity
4	resilient channels at 610 mm on centre
5	single layer of 13 mm type X gypsum board
6	single layer of 13 mm type X gypsum board



TestID	TL-93-172
STC	48
50 Hz	22.8
63 Hz	17.1
80 Hz	20.9
100 Hz	18.5
125 Hz	24.0
160 Hz	30.4
200 Hz	36.6
250 Hz	44.4
315 Hz	50.9
400 Hz	57.2
500 Hz	62.4
630 Hz	66.9
800 Hz	69.7
1000 Hz	72.3
1250 Hz	73.6
1600 Hz	74.1
2000 Hz	72.3
2500 Hz	61.5
3150 Hz	58.8
4000 Hz	62.6
5000 Hz	66.9
6300 Hz	70.7

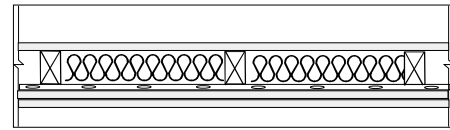
TL-93-172	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	stud	insulation	resilient	gypsum board	gypsum board
material	AX	wood	C2	G.P	AX	AX
thickness mm	13	90	90	13	13	13
gauge						
spacing mm		406		610		
surface density kg/m <sup>2</sup>	10.0		4.8		10.0	10.0
linear density kg/m		1.4				
total weight kg	74.4	41.3	32.7	3.8	74.0	74.2
fastener spacing - edge mm	406				305	406
fastener spacing - field mm	406				610	406
fastener top track pattern	c					
fastener base track pattern	c					
stud attached to top track		yes				
double header		yes				
orientation	vertical			horizontal	horizontal	vertical

TL-93-172  
STC 48



G13\_WS90(406)\_GFB90\_RC13(610)\_2G13

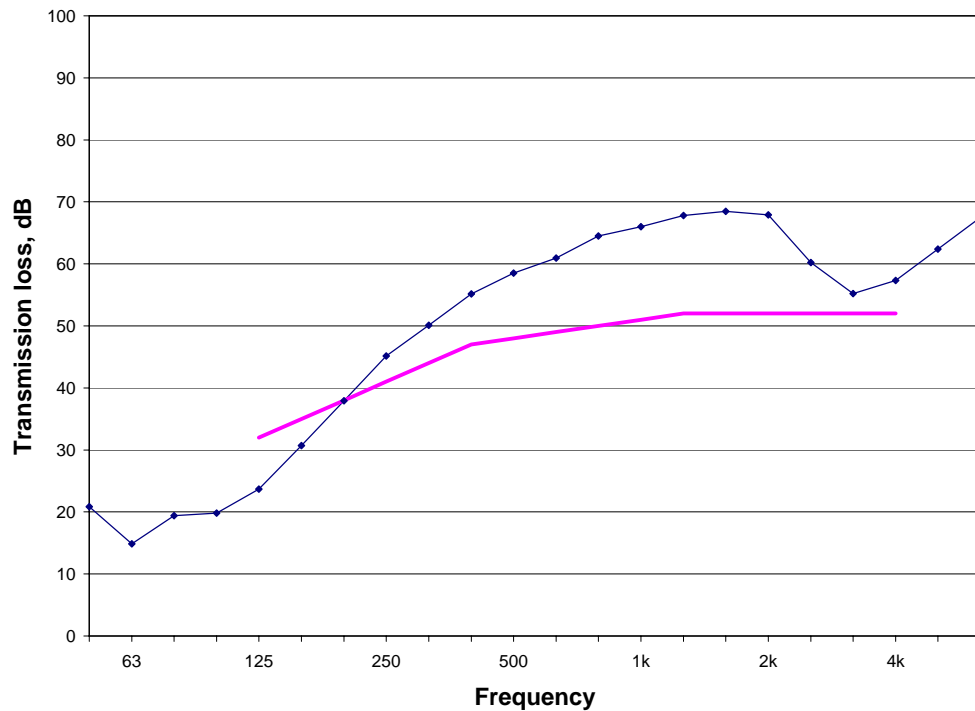
Element	Description:
1	single layer of 13 mm gypsum board
2	90 mm wood studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	resilient channels at 610 mm on centre
5	single layer of 13 mm gypsum board
6	single layer of 13 mm gypsum board



TestID	TL-93-129
STC	48
50 Hz	20.8
63 Hz	14.9
80 Hz	19.4
100 Hz	19.8
125 Hz	23.7
160 Hz	30.7
200 Hz	37.9
250 Hz	45.1
315 Hz	50.1
400 Hz	55.2
500 Hz	58.5
630 Hz	60.9
800 Hz	64.5
1000 Hz	66.0
1250 Hz	67.8
1600 Hz	68.5
2000 Hz	67.9
2500 Hz	60.2
3150 Hz	55.2
4000 Hz	57.3
5000 Hz	62.4
6300 Hz	67.5

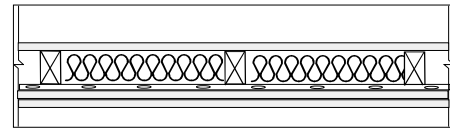
TL-93-129	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	stud	insulation	resilient	gypsum board	gypsum board
material	B	wood	G1	G.P	B	B
thickness mm	13	90	90	13	13	13
gauge						
spacing mm		406		610		
surface density kg/m <sup>2</sup>	8.2		1.0		8.3	8.2
linear density kg/m		1.4				
total weight kg	61.1	40.7	7.6	3.6	61.5	60.6
fastener spacing - edge mm	406				305	305
fastener spacing - field mm	406				610	305
fastener top track pattern	c					
fastener base track pattern	c					
stud attached to top track		yes				
double header		yes				
orientation	vertical			horizontal	horizontal	vertical

TL-93-129  
STC 48



G13\_WS90(406)\_GFB90\_RC13(610)\_2G13

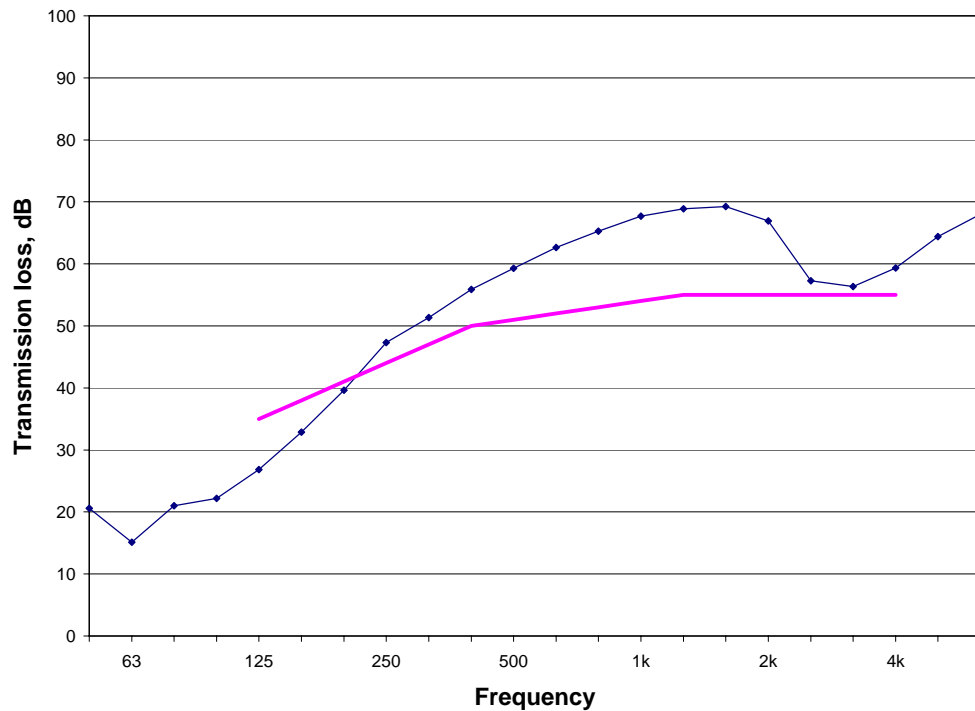
Element	Description:
1	single layer of 13 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	resilient channels at 610 mm on centre
5	single layer of 13 mm type X gypsum board
6	single layer of 13 mm type X gypsum board



TestID	TL-93-126
STC	51
50 Hz	20.6
63 Hz	15.1
80 Hz	21.0
100 Hz	22.2
125 Hz	26.8
160 Hz	32.9
200 Hz	39.6
250 Hz	47.3
315 Hz	51.4
400 Hz	55.9
500 Hz	59.3
630 Hz	62.6
800 Hz	65.2
1000 Hz	67.7
1250 Hz	68.9
1600 Hz	69.3
2000 Hz	66.9
2500 Hz	57.3
3150 Hz	56.3
4000 Hz	59.3
5000 Hz	64.4
6300 Hz	68.0

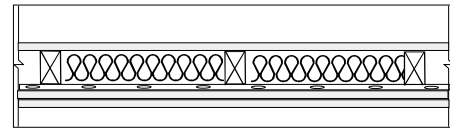
TL-93-126	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	stud	insulation	resilient	gypsum board	gypsum board
material	AX	wood	G1	G.P	AX	AX
thickness mm	13	90	90	13	13	13
gauge						
spacing mm		406		610		
surface density kg/m <sup>2</sup>	9.9		1.0		10.1	9.9
linear density kg/m		1.4				
total weight kg	73.6	40.7	7.6	3.6	74.9	73.5
fastener spacing - edge mm	406				305	305
fastener spacing - field mm	406				610	305
fastener top track pattern	c					
fastener base track pattern	c					
stud attached to top track		yes				
double header		yes				
orientation	vertical			horizontal	horizontal	vertical

TL-93-126  
STC 51



G13\_WS90(406)\_GFB90\_RC13(610)\_2G13

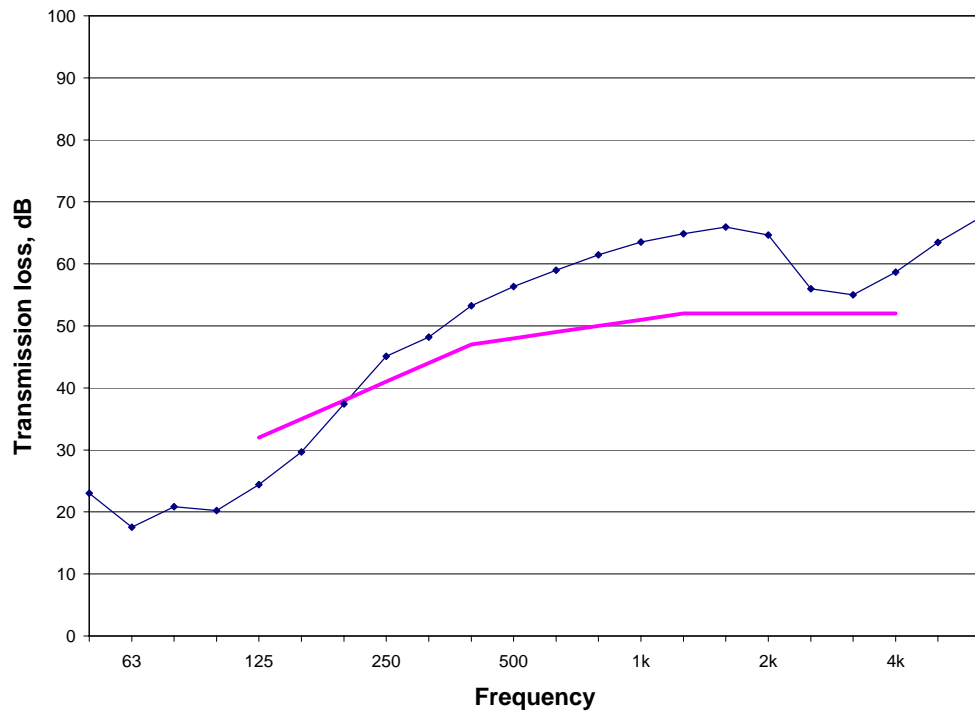
Element	Description:
1	single layer of 13 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	resilient channels at 610 mm on centre
5	single layer of 13 mm type X gypsum board
6	single layer of 13 mm type X gypsum board



TestID	TL-93-150
STC	48
50 Hz	23.0
63 Hz	17.6
80 Hz	20.9
100 Hz	20.2
125 Hz	24.4
160 Hz	29.6
200 Hz	37.4
250 Hz	45.1
315 Hz	48.2
400 Hz	53.2
500 Hz	56.4
630 Hz	59.0
800 Hz	61.4
1000 Hz	63.5
1250 Hz	64.9
1600 Hz	65.9
2000 Hz	64.6
2500 Hz	56.0
3150 Hz	55.0
4000 Hz	58.7
5000 Hz	63.5
6300 Hz	67.5

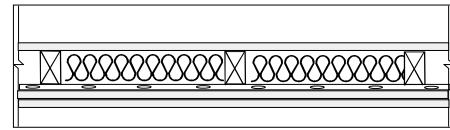
TL-93-150	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	stud	insulation	resilient	gypsum board	gypsum board
material	BX	wood	G1	G.P	BX	BX
thickness mm	13	90	90	13	13	13
gauge						
spacing mm		406		610		
surface density kg/m <sup>2</sup>	9.4		1.0		9.5	9.5
linear density kg/m		1.6				
total weight kg	70.2	46.8	7.7	3.8	70.9	70.6
fastener spacing - edge mm	406				305	305
fastener spacing - field mm	406				610	305
fastener top track pattern	c					
fastener base track pattern	c					
stud attached to top track		yes				
double header		yes				
orientation	vertical			horizontal	horizontal	vertical

TL-93-150  
STC 48



G13\_WS90(406)\_GFB90\_RC13(610)\_2G13

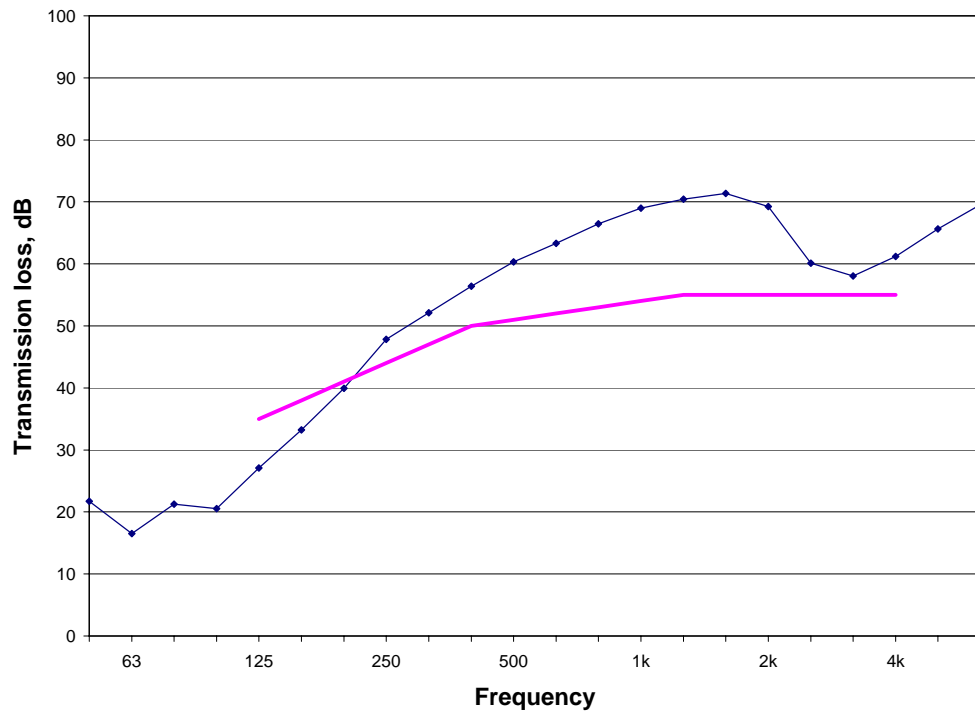
Element	Description:
1	single layer of 13 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	resilient channels at 610 mm on centre
5	single layer of 13 mm type X gypsum board
6	single layer of 13 mm type X gypsum board



TestID	TL-93-180
STC	51
50 Hz	21.7
63 Hz	16.5
80 Hz	21.3
100 Hz	20.6
125 Hz	27.1
160 Hz	33.2
200 Hz	39.9
250 Hz	47.8
315 Hz	52.1
400 Hz	56.4
500 Hz	60.3
630 Hz	63.3
800 Hz	66.5
1000 Hz	69.0
1250 Hz	70.5
1600 Hz	71.4
2000 Hz	69.2
2500 Hz	60.1
3150 Hz	58.1
4000 Hz	61.2
5000 Hz	65.6
6300 Hz	69.6

TL-93-180	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	stud	insulation	resilient	gypsum board	gypsum board
material	AX	wood	G2	G.P	AX	AX
thickness mm	13	90	90	13	13	13
gauge						
spacing mm		406		610		
surface density kg/m <sup>2</sup>	10.0		1.3		10.0	10.1
linear density kg/m		1.4				
total weight kg	74.4	41.3	10.0	3.8	74.5	75.0
fastener spacing - edge mm	406				305	305
fastener spacing - field mm	406				610	305
fastener top track pattern	c					
fastener base track pattern	c					
stud attached to top track		yes				
double header		yes				
orientation	vertical			horizontal	horizontal	vertical

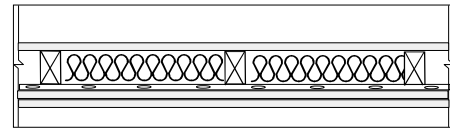
TL-93-180  
STC 51





G13\_WS90(406)\_MFB65\_RC13(610)\_2G13

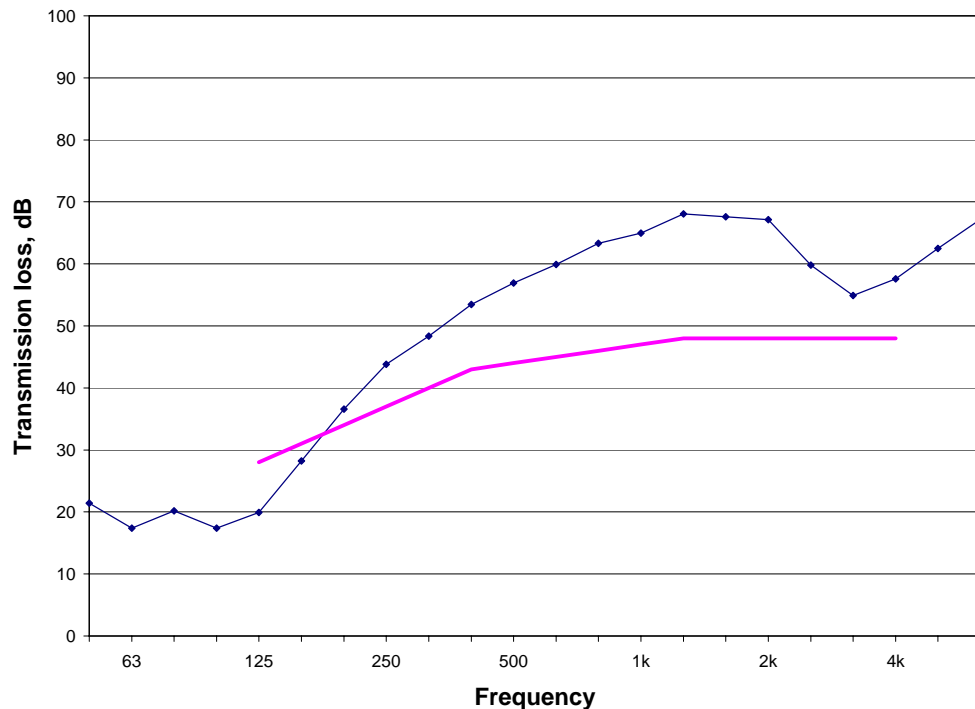
Element	Description:
1	single layer of 13 mm gypsum board
2	90 mm wood studs at 406 mm on centre
3	65 mm of mineral fibre insulation in cavity
4	resilient channels at 610 mm on centre
5	single layer of 13 mm gypsum board
6	single layer of 13 mm gypsum board



TestID	TL-93-163
STC	44
50 Hz	21.4
63 Hz	17.4
80 Hz	20.2
100 Hz	17.4
125 Hz	19.9
160 Hz	28.2
200 Hz	36.6
250 Hz	43.8
315 Hz	48.4
400 Hz	53.4
500 Hz	56.9
630 Hz	59.9
800 Hz	63.3
1000 Hz	65.0
1250 Hz	68.1
1600 Hz	67.6
2000 Hz	67.1
2500 Hz	59.8
3150 Hz	54.9
4000 Hz	57.6
5000 Hz	62.5
6300 Hz	67.2

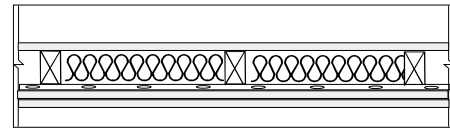
TL-93-163	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	stud	insulation	resilient	gypsum board	gypsum board
material	B	wood	M1	G.P	B	B
thickness mm	13	90	65	13	13	13
gauge						
spacing mm		406		610		
surface density kg/m <sup>2</sup>	8.3		2.2		8.2	8.3
linear density kg/m		1.6				
total weight kg	61.5	46.8	16.7	3.8	61.1	61.5
fastener spacing - edge mm	406				305	305
fastener spacing - field mm	406				610	305
fastener top track pattern	c					
fastener base track pattern	c					
stud attached to top track		yes				
double header		yes				
orientation	vertical			horizontal	horizontal	vertical

TL-93-163  
STC 44



G13\_WS90(406)\_MFB65\_RC13(610)\_2G13

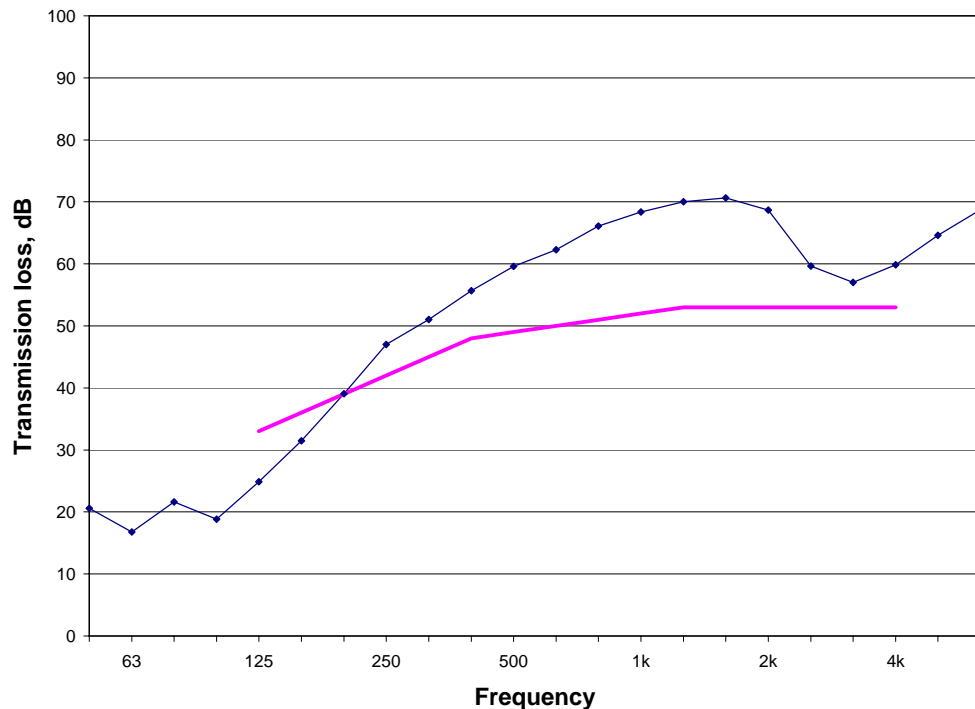
Element	Description:
1	single layer of 13 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	65 mm of mineral fibre insulation in cavity
4	resilient channels at 610 mm on centre
5	single layer of 13 mm type X gypsum board
6	single layer of 13 mm type X gypsum board



TestID	TL-93-183
STC	49
50 Hz	20.6
63 Hz	16.8
80 Hz	21.6
100 Hz	18.9
125 Hz	24.9
160 Hz	31.5
200 Hz	39.1
250 Hz	47.0
315 Hz	51.0
400 Hz	55.7
500 Hz	59.6
630 Hz	62.3
800 Hz	66.1
1000 Hz	68.4
1250 Hz	70.0
1600 Hz	70.6
2000 Hz	68.7
2500 Hz	59.7
3150 Hz	57.0
4000 Hz	59.9
5000 Hz	64.6
6300 Hz	68.7

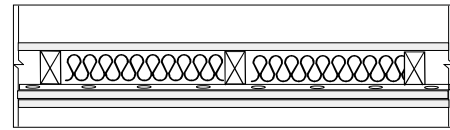
TL-93-183	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	stud	insulation	resilient	gypsum board	gypsum board
material	AX	wood	M1	G.P	AX	AX
thickness mm	13	90	65	13	13	13
gauge						
spacing mm		406		610		
surface density kg/m <sup>2</sup>	10.0		2.3		10.0	10.1
linear density kg/m		1.4				
total weight kg	74.0	41.3	17.1	3.8	74.5	75.0
fastener spacing - edge mm	406				305	305
fastener spacing - field mm	406				610	305
fastener top track pattern	c					
fastener base track pattern	c					
stud attached to top track		yes				
double header		yes				
orientation	vertical			horizontal	horizontal	vertical

TL-93-183  
STC 49



G13\_WS90(406)\_MFB90\_RC13(610)\_2G13

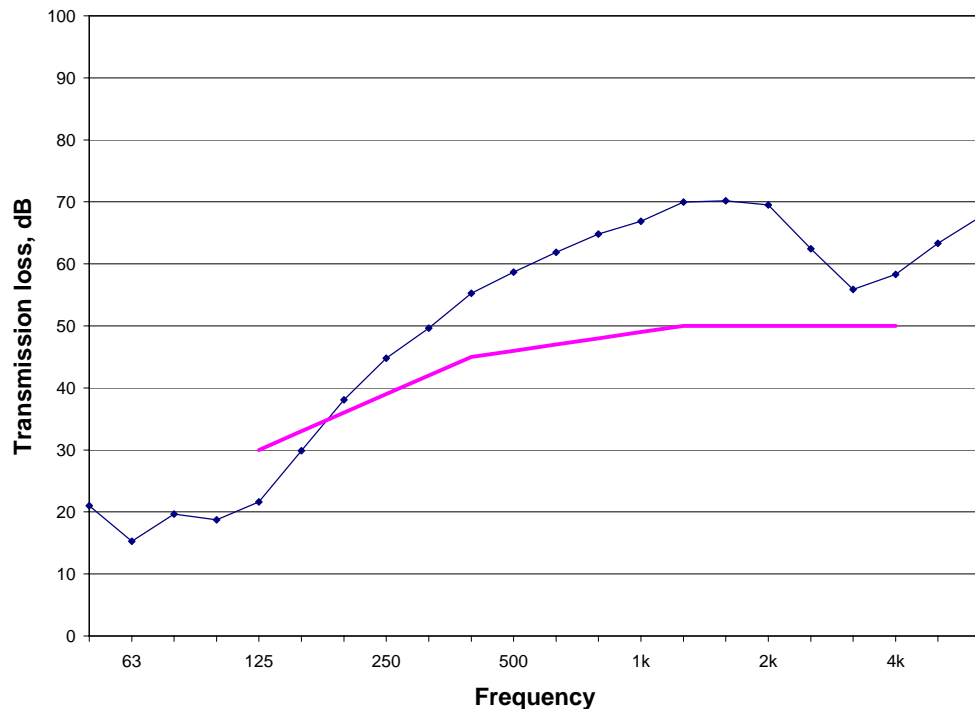
Element	Description:
1	single layer of 13 mm gypsum board
2	90 mm wood studs at 406 mm on centre
3	90 mm of mineral fibre insulation in cavity
4	resilient channels at 610 mm on centre
5	single layer of 13 mm gypsum board
6	single layer of 13 mm gypsum board



TestID	TL-93-164
STC	46
50 Hz	21.0
63 Hz	15.3
80 Hz	19.7
100 Hz	18.7
125 Hz	21.6
160 Hz	29.9
200 Hz	38.1
250 Hz	44.8
315 Hz	49.6
400 Hz	55.3
500 Hz	58.7
630 Hz	61.9
800 Hz	64.8
1000 Hz	66.9
1250 Hz	70.0
1600 Hz	70.2
2000 Hz	69.5
2500 Hz	62.4
3150 Hz	55.9
4000 Hz	58.3
5000 Hz	63.3
6300 Hz	67.6

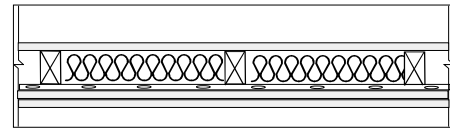
TL-93-164	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	stud	insulation	resilient	gypsum board	gypsum board
material	B	wood	M1	G.P	B	B
thickness mm	13	90	90	13	13	13
gauge						
spacing mm		406		610		
surface density kg/m <sup>2</sup>	8.3		2.3		8.2	8.3
linear density kg/m		1.6				
total weight kg	61.5	46.8	17.3	3.8	61.1	61.5
fastener spacing - edge mm	406				305	305
fastener spacing - field mm	406				610	305
fastener top track pattern	c					
fastener base track pattern	c					
stud attached to top track		yes				
double header		yes				
orientation	vertical			horizontal	horizontal	vertical

TL-93-164  
STC 46



G13\_WS90(406)\_MFB90\_RC13(610)\_2G13

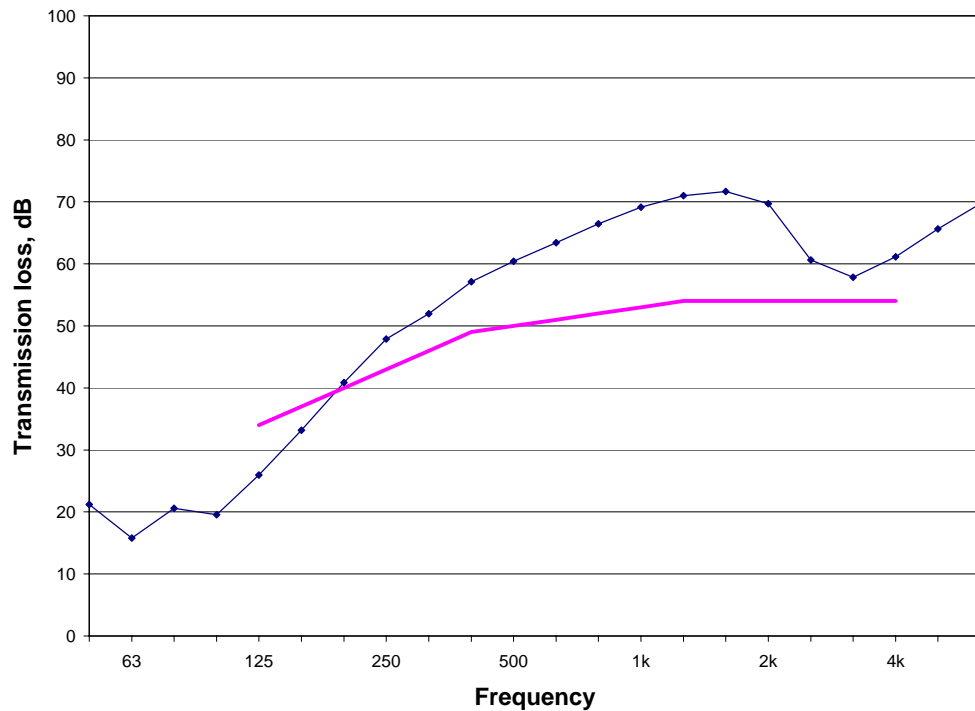
Element	Description:
1	single layer of 13 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	90 mm of mineral fibre insulation in cavity
4	resilient channels at 610 mm on centre
5	single layer of 13 mm type X gypsum board
6	single layer of 13 mm type X gypsum board



TestID	TL-93-186
STC	50
50 Hz	21.2
63 Hz	15.8
80 Hz	20.6
100 Hz	19.6
125 Hz	25.9
160 Hz	33.2
200 Hz	40.9
250 Hz	47.9
315 Hz	51.9
400 Hz	57.1
500 Hz	60.4
630 Hz	63.4
800 Hz	66.5
1000 Hz	69.2
1250 Hz	71.0
1600 Hz	71.7
2000 Hz	69.7
2500 Hz	60.6
3150 Hz	57.9
4000 Hz	61.1
5000 Hz	65.6
6300 Hz	69.7

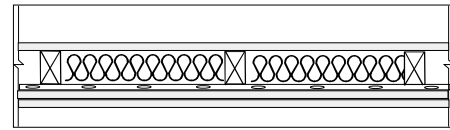
TL-93-186	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	stud	insulation	resilient	gypsum board	gypsum board
material	AX	wood	M1	G.P	AX	AX
thickness mm	13	90	90	13	13	13
gauge						
spacing mm		406		610		
surface density kg/m <sup>2</sup>	10.1		2.4		10.0	10.1
linear density kg/m		1.4				
total weight kg	75.1	41.3	17.8	3.8	74.5	75.4
fastener spacing - edge mm	406				305	305
fastener spacing - field mm	406				610	305
fastener top track pattern	c					
fastener base track pattern	c					
stud attached to top track		yes				
double header		yes				
orientation	vertical			horizontal	horizontal	vertical

TL-93-186  
STC 50



G13\_WS90(610)\_GFB65\_RC13(610)\_2G13

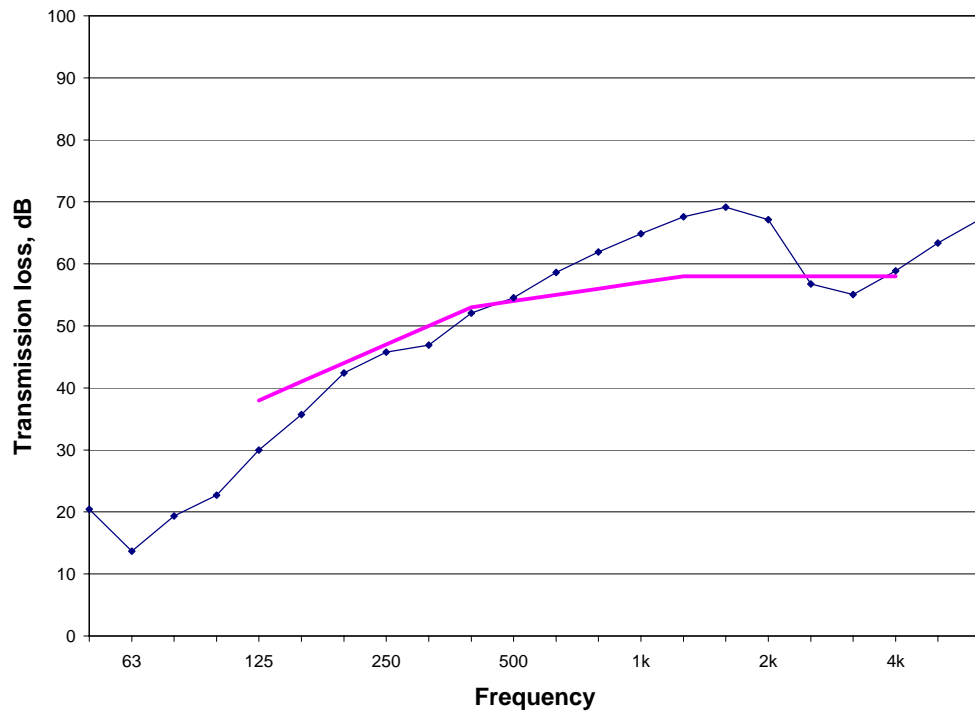
Element	Description:
1	single layer of 13 mm type X gypsum board
2	90 mm wood studs at 610 mm on centre
3	65 mm of glass fibre insulation in cavity
4	resilient channels at 610 mm on centre
5	single layer of 13 mm type X gypsum board
6	single layer of 13 mm type X gypsum board



TestID	TL-93-094
STC	54
50 Hz	20.4
63 Hz	13.7
80 Hz	19.3
100 Hz	22.7
125 Hz	30.0
160 Hz	35.7
200 Hz	42.4
250 Hz	45.8
315 Hz	46.9
400 Hz	52.1
500 Hz	54.6
630 Hz	58.6
800 Hz	61.9
1000 Hz	64.9
1250 Hz	67.6
1600 Hz	69.1
2000 Hz	67.1
2500 Hz	56.8
3150 Hz	55.0
4000 Hz	58.9
5000 Hz	63.4
6300 Hz	67.3

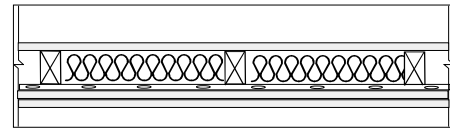
TL-93-094	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	stud	insulation	resilient	gypsum board	gypsum board
material	AX	wood	G1	G.P.	AX	AX
thickness mm	13	90	65	13	13	13
gauge						
spacing mm		610		610		
surface density kg/m <sup>2</sup>	10.0		0.7		10.1	10.0
linear density kg/m		1.3				
total weight kg	74.4	29.1	5.2	3.8	75.0	74.3
fastener spacing - edge mm	305				305	305
fastener spacing - field mm	305				610	305
fastener top track pattern	c					
fastener base track pattern	c					
stud attached to top track		yes				
double header						
orientation	vertical			horizontal	horizontal	vertical

TL-93-094  
STC 54



G13\_WS90(610)\_GFB90\_RC13(610)\_2G13

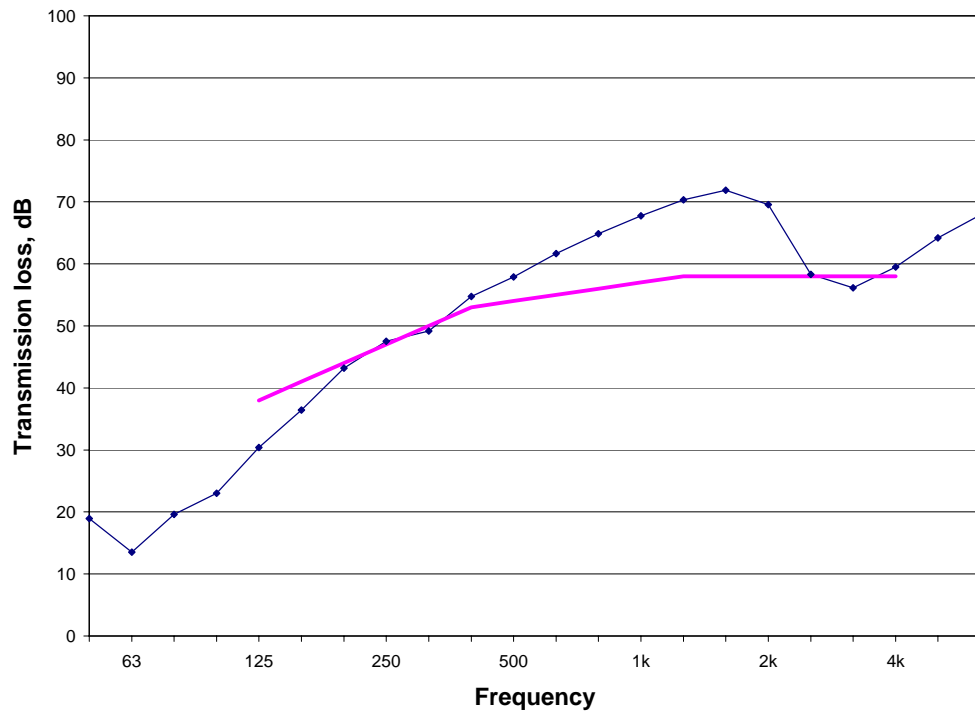
Element	Description:
1	single layer of 13 mm type X gypsum board
2	90 mm wood studs at 610 mm on centre
3	90 mm of glass fibre insulation in cavity
4	resilient channels at 610 mm on centre
5	single layer of 13 mm type X gypsum board
6	single layer of 13 mm type X gypsum board



TestID	TL-93-097
STC	54
50 Hz	18.9
63 Hz	13.5
80 Hz	19.6
100 Hz	23.0
125 Hz	30.4
160 Hz	36.4
200 Hz	43.2
250 Hz	47.5
315 Hz	49.2
400 Hz	54.7
500 Hz	57.9
630 Hz	61.7
800 Hz	64.8
1000 Hz	67.7
1250 Hz	70.4
1600 Hz	71.9
2000 Hz	69.6
2500 Hz	58.3
3150 Hz	56.1
4000 Hz	59.5
5000 Hz	64.2
6300 Hz	67.9

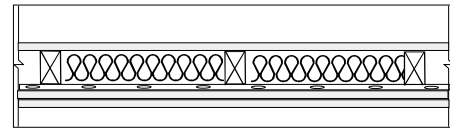
TL-93-097	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	stud	insulation	resilient	gypsum board	gypsum board
material	AX	wood	G1	G.P.	AX	AX
thickness mm	13	90	90	13	13	13
gauge						
spacing mm		610		610		
surface density kg/m <sup>2</sup>	9.9		1.1		10.0	9.6
linear density kg/m		1.3				
total weight kg	73.9	29.1	8.0	3.8	74.2	71.3
fastener spacing - edge mm	305				305	305
fastener spacing - field mm	305				610	305
fastener top track pattern	c					
fastener base track pattern	c					
stud attached to top track		yes				
double header						
orientation	vertical			horizontal	horizontal	vertical

TL-93-097  
STC 54



G16\_WS90(406)\_GFB90\_RC13(406)\_2G16

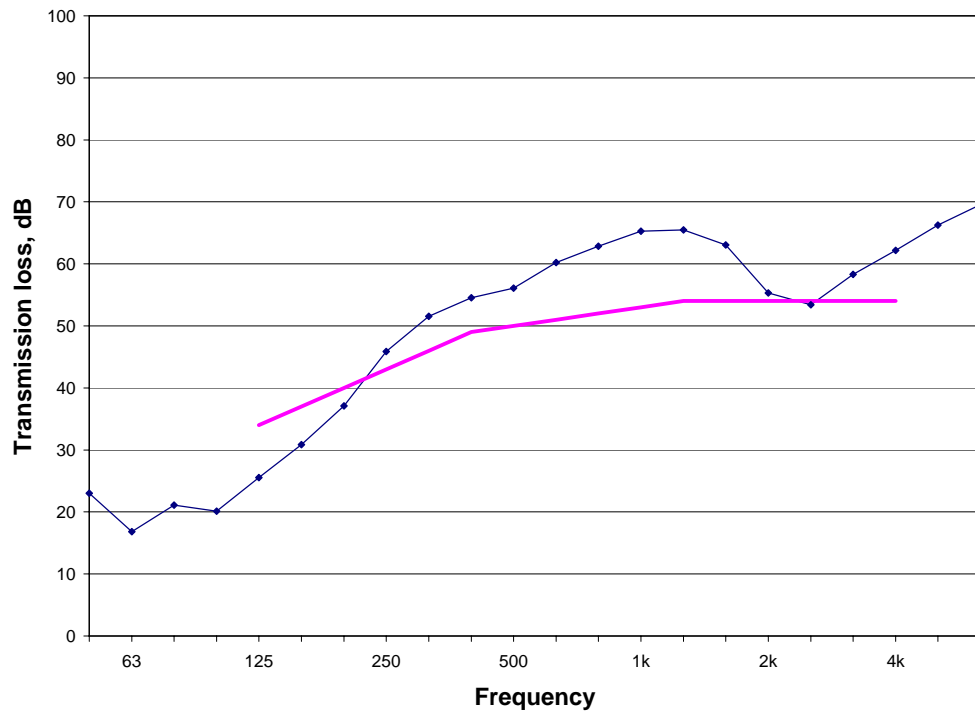
Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	resilient channels at 406 mm on centre
5	single layer of 16 mm type X gypsum board
6	single layer of 16 mm type X gypsum board



TestID	TL-93-118
STC	50
50 Hz	23.0
63 Hz	16.8
80 Hz	21.1
100 Hz	20.1
125 Hz	25.5
160 Hz	30.8
200 Hz	37.1
250 Hz	45.9
315 Hz	51.5
400 Hz	54.5
500 Hz	56.1
630 Hz	60.2
800 Hz	62.8
1000 Hz	65.3
1250 Hz	65.5
1600 Hz	63.1
2000 Hz	55.3
2500 Hz	53.4
3150 Hz	58.3
4000 Hz	62.2
5000 Hz	66.3
6300 Hz	69.6

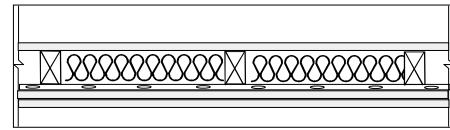
TL-93-118	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	stud	insulation	resilient	gypsum board	gypsum board
material	CX	wood	G1	G.P	CX	CX
thickness mm	16	90	90	13	16	16
gauge						
spacing mm		406		406		
surface density kg/m <sup>2</sup>	11.1		1.0		11.1	10.9
linear density kg/m		1.4				
total weight kg	82.7	40.7	7.6	5.3	82.6	81.3
fastener spacing - edge mm	406				305	305
fastener spacing - field mm	406				610	305
fastener top track pattern	c					
fastener base track pattern	c					
stud attached to top track		yes				
double header		yes				
orientation	vertical			horizontal	horizontal	vertical

TL-93-118  
STC 50



G16\_WS90(406)\_CFL90\_RC13(610)\_2G16

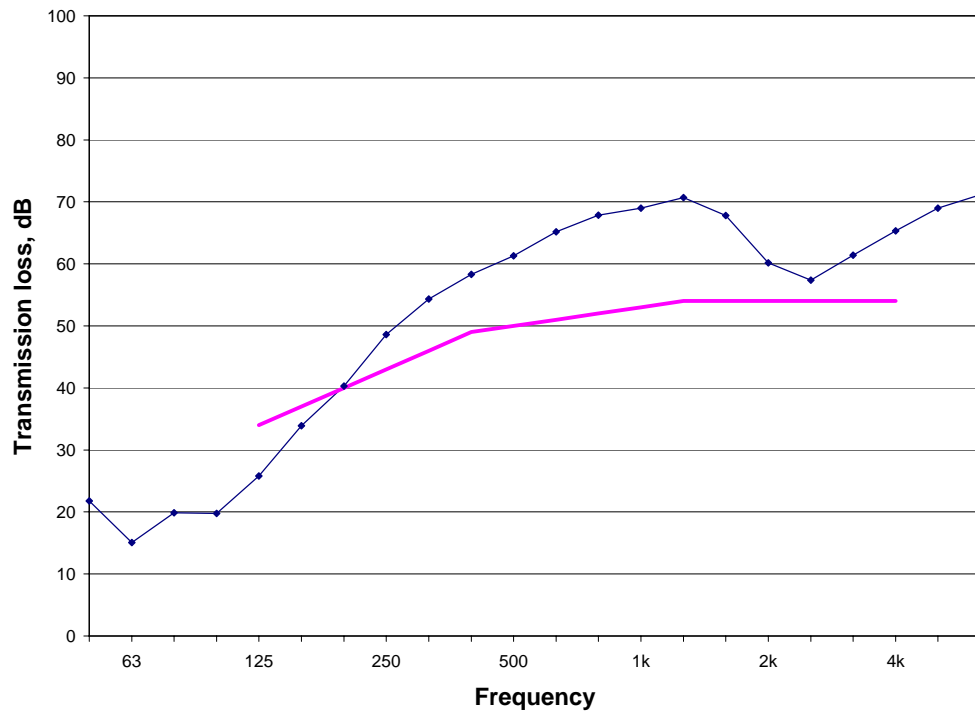
Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	90 mm of blown cellulose fibre insulation in cavity
4	resilient channels at 610 mm on centre
5	single layer of 16 mm type X gypsum board
6	single layer of 16 mm type X gypsum board



TestID	TL-93-107
STC	50
50 Hz	21.8
63 Hz	15.1
80 Hz	19.9
100 Hz	19.8
125 Hz	25.8
160 Hz	33.9
200 Hz	40.3
250 Hz	48.6
315 Hz	54.3
400 Hz	58.3
500 Hz	61.3
630 Hz	65.2
800 Hz	67.8
1000 Hz	69.0
1250 Hz	70.7
1600 Hz	67.8
2000 Hz	60.2
2500 Hz	57.4
3150 Hz	61.4
4000 Hz	65.3
5000 Hz	69.0
6300 Hz	71.2

TL-93-107	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	stud	insulation	resilient	gypsum board	gypsum board
material	CX	wood	C2	G.P	CX	CX
thickness mm	16	90	90	13	16	16
gauge						
spacing mm		406		610		
surface density kg/m <sup>2</sup>	11.0		5.4		11.0	11.0
linear density kg/m		1.4				
total weight kg	81.4	40.7	36.2	3.8	81.6	81.8
fastener spacing - edge mm	406				305	305
fastener spacing - field mm	406				610	305
fastener top track pattern	c					
fastener base track pattern	c					
stud attached to top track		yes				
double header		yes				
orientation	vertical			horizontal	horizontal	vertical

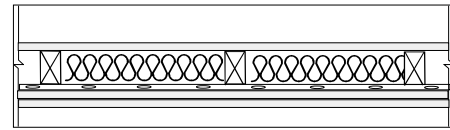
TL-93-107  
STC 50





G16\_WS90(406)\_CFS40\_RC13(610)\_2G16

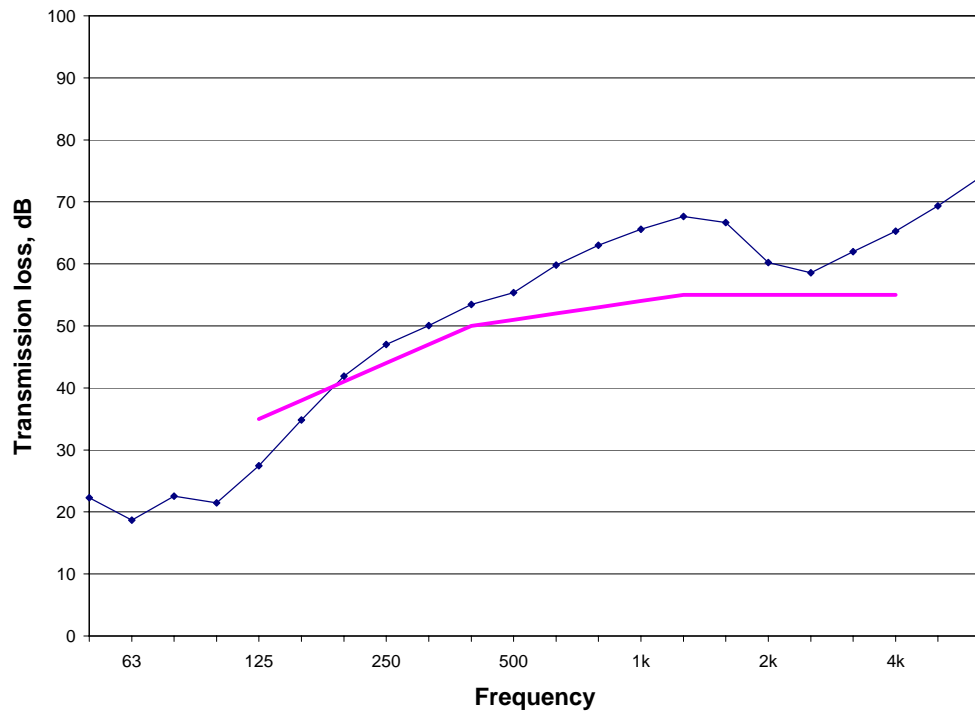
Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	40 mm of sprayed cellulose fibre insulation in cavity
4	resilient channels at 610 mm on centre
5	single layer of 16 mm type X gypsum board
6	single layer of 16 mm type X gypsum board



TestID	TL-93-145
STC	51
50 Hz	22.3
63 Hz	18.7
80 Hz	22.6
100 Hz	21.5
125 Hz	27.4
160 Hz	34.9
200 Hz	41.9
250 Hz	47.0
315 Hz	50.0
400 Hz	53.4
500 Hz	55.3
630 Hz	59.8
800 Hz	63.0
1000 Hz	65.6
1250 Hz	67.7
1600 Hz	66.7
2000 Hz	60.2
2500 Hz	58.6
3150 Hz	62.0
4000 Hz	65.3
5000 Hz	69.4
6300 Hz	74.0

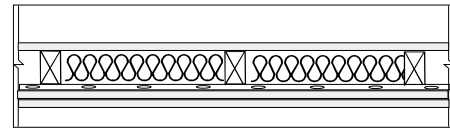
TL-93-145	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	stud	insulation	resilient	gypsum board	gypsum board
material	CX	wood	C1	G.P	CX	CX
thickness mm	16	90	40	13	16	16
gauge						
spacing mm		406		610		
surface density kg/m <sup>2</sup>	11.0		2.8		11.1	11.1
linear density kg/m		1.6				
total weight kg	82.0	46.8	21.0	3.8	82.5	82.2
fastener spacing - edge mm	406				305	305
fastener spacing - field mm	406				610	305
fastener top track pattern	c					
fastener base track pattern	c					
stud attached to top track		yes				
double header		yes				
orientation	vertical			horizontal	horizontal	vertical

TL-93-145  
STC 51



G16\_WS90(406)\_GFB90\_RC13(610)\_2G16

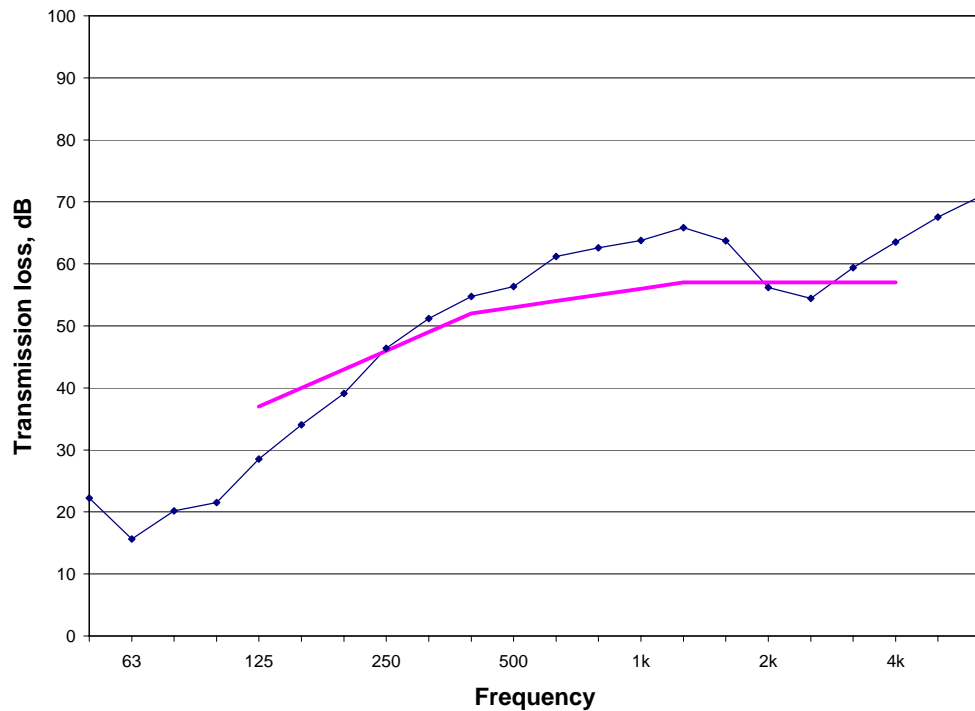
Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	resilient channels at 610 mm on centre
5	single layer of 16 mm type X gypsum board
6	single layer of 16 mm type X gypsum board



TestID	TL-93-114
STC	53
50 Hz	22.2
63 Hz	15.6
80 Hz	20.2
100 Hz	21.5
125 Hz	28.5
160 Hz	34.0
200 Hz	39.1
250 Hz	46.4
315 Hz	51.2
400 Hz	54.8
500 Hz	56.3
630 Hz	61.2
800 Hz	62.6
1000 Hz	63.8
1250 Hz	65.8
1600 Hz	63.7
2000 Hz	56.2
2500 Hz	54.5
3150 Hz	59.4
4000 Hz	63.5
5000 Hz	67.6
6300 Hz	70.9

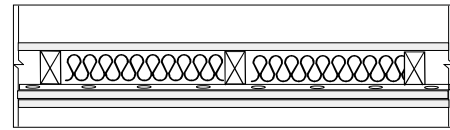
TL-93-114	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	stud	insulation	resilient	gypsum board	gypsum board
material	CX	wood	G1	G.P	CX	CX
thickness mm	16	90	90	13	16	16
gauge						
spacing mm		406		610		
surface density kg/m <sup>2</sup>	11.1		1.0		11.0	11.1
linear density kg/m		1.4				
total weight kg	82.7	40.7	7.6	3.8	81.9	82.5
fastener spacing - edge mm	406				305	305
fastener spacing - field mm	406				610	305
fastener top track pattern	c					
fastener base track pattern	c					
stud attached to top track		yes				
double header		yes				
orientation	vertical			horizontal	horizontal	vertical

TL-93-114  
STC 53



G16\_WS90(406)\_GFB90\_RC13(610)\_2G16

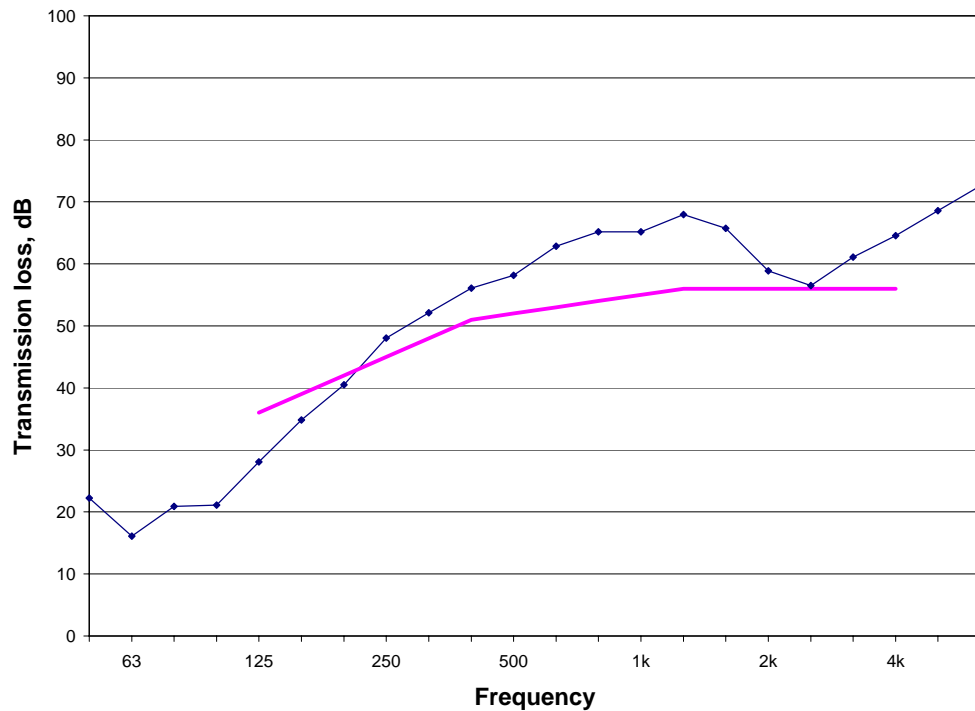
Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	resilient channels at 610 mm on centre
5	single layer of 16 mm type X gypsum board
6	single layer of 16 mm type X gypsum board



TestID	TL-93-124
STC	52
50 Hz	22.2
63 Hz	16.1
80 Hz	20.9
100 Hz	21.1
125 Hz	28.1
160 Hz	34.8
200 Hz	40.5
250 Hz	48.0
315 Hz	52.1
400 Hz	56.1
500 Hz	58.2
630 Hz	62.8
800 Hz	65.2
1000 Hz	65.2
1250 Hz	68.0
1600 Hz	65.8
2000 Hz	58.9
2500 Hz	56.5
3150 Hz	61.1
4000 Hz	64.5
5000 Hz	68.6
6300 Hz	72.6

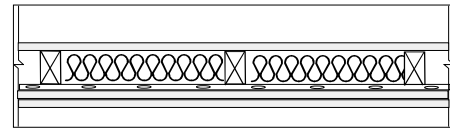
TL-93-124	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	stud	insulation	resilient	gypsum board	gypsum board
material	CX	wood	G2	G.P	CX	CX
thickness mm	16	90	90	13	16	16
gauge						
spacing mm		406		610		
surface density kg/m <sup>2</sup>	11.0		1.3		11.3	11.0
linear density kg/m		1.4				
total weight kg	81.8	40.7	9.8	3.6	84.1	81.4
fastener spacing - edge mm	406				305	305
fastener spacing - field mm	406				610	305
fastener top track pattern	c					
fastener base track pattern	c					
stud attached to top track		yes				
double header		yes				
orientation	vertical			horizontal	horizontal	vertical

TL-93-124  
STC 52



G16\_WS90(406)\_MFB65\_RC13(610)\_2G16

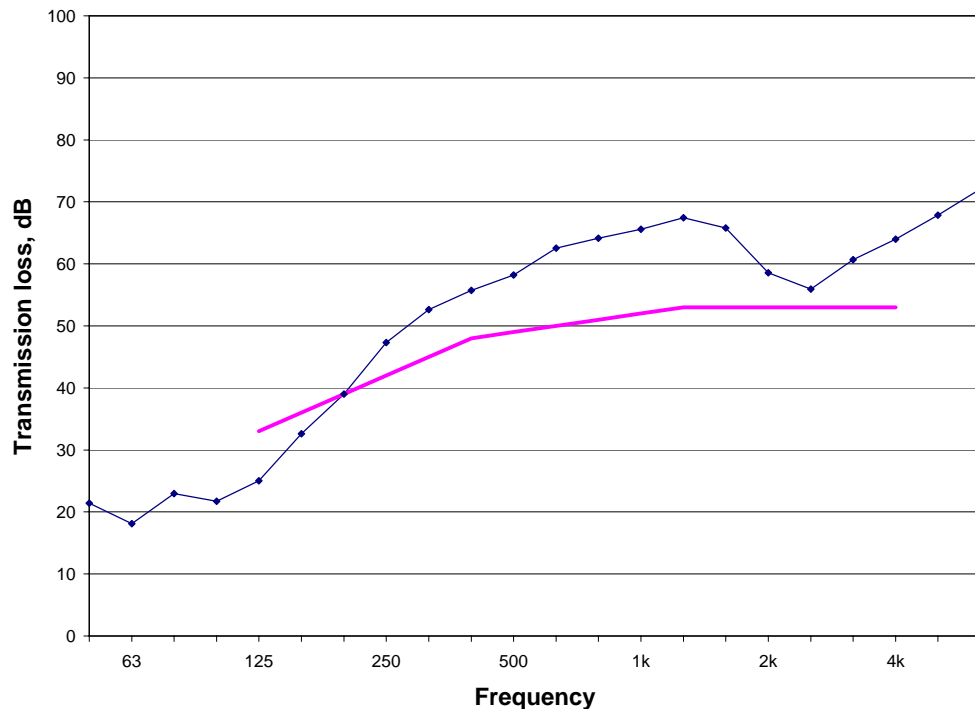
Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	65 mm of mineral fibre insulation in cavity
4	resilient channels at 610 mm on centre
5	single layer of 16 mm type X gypsum board
6	single layer of 16 mm type X gypsum board



TestID	TL-93-153
STC	49
50 Hz	21.4
63 Hz	18.1
80 Hz	23.0
100 Hz	21.7
125 Hz	25.0
160 Hz	32.6
200 Hz	39.0
250 Hz	47.3
315 Hz	52.6
400 Hz	55.7
500 Hz	58.2
630 Hz	62.6
800 Hz	64.1
1000 Hz	65.6
1250 Hz	67.4
1600 Hz	65.8
2000 Hz	58.5
2500 Hz	55.9
3150 Hz	60.7
4000 Hz	64.0
5000 Hz	67.8
6300 Hz	72.1

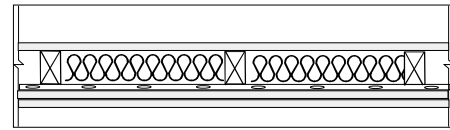
TL-93-153	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	stud	insulation	resilient	gypsum board	gypsum board
material	CX	wood	M1	G.P	CX	CX
thickness mm	16	90	65	13	16	16
gauge						
spacing mm		406		610		
surface density kg/m <sup>2</sup>	11.0		2.2		11.1	11.1
linear density kg/m		1.6				
total weight kg	81.8	46.8	16.7	3.8	82.3	82.2
fastener spacing - edge mm	305				305	305
fastener spacing - field mm	305				610	305
fastener top track pattern	c					
fastener base track pattern	c					
stud attached to top track		yes				
double header		yes				
orientation	vertical			horizontal	horizontal	vertical

TL-93-153  
STC 49



G16\_WS90(406)\_MFB90\_RC13(610)\_2G16

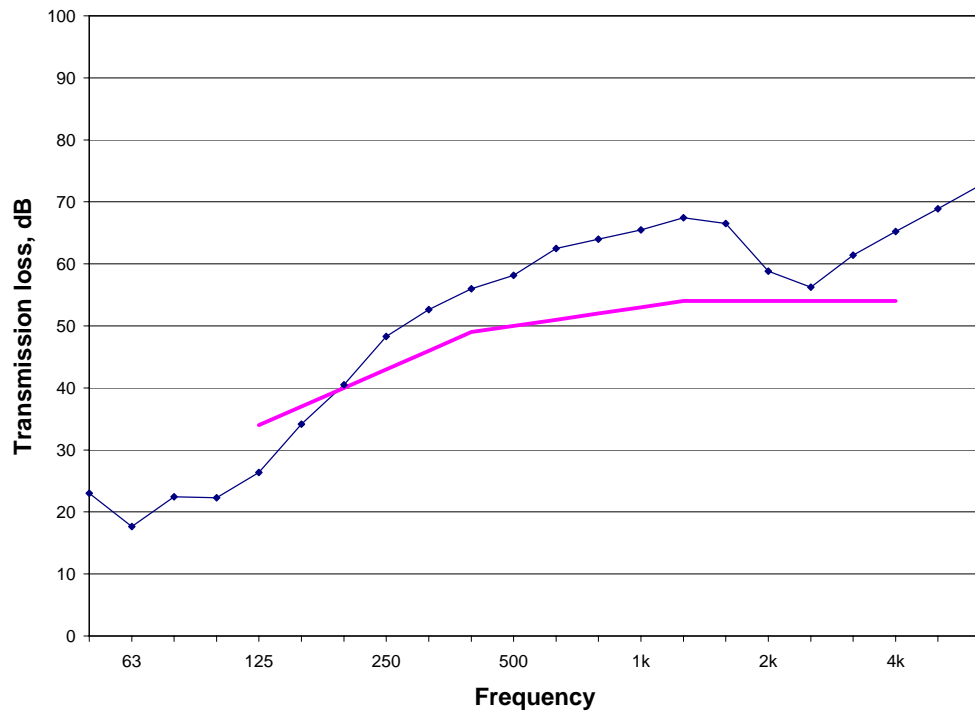
Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	90 mm of mineral fibre insulation in cavity
4	resilient channels at 610 mm on centre
5	single layer of 16 mm type X gypsum board
6	single layer of 16 mm type X gypsum board



TestID	TL-93-155
STC	50
50 Hz	23.0
63 Hz	17.6
80 Hz	22.4
100 Hz	22.3
125 Hz	26.3
160 Hz	34.2
200 Hz	40.5
250 Hz	48.3
315 Hz	52.7
400 Hz	56.0
500 Hz	58.2
630 Hz	62.5
800 Hz	64.0
1000 Hz	65.5
1250 Hz	67.4
1600 Hz	66.5
2000 Hz	58.8
2500 Hz	56.3
3150 Hz	61.4
4000 Hz	65.2
5000 Hz	68.9
6300 Hz	72.7

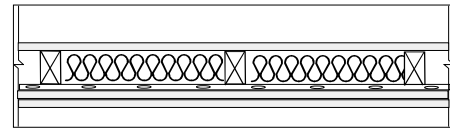
TL-93-155	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	stud	insulation	resilient	gypsum board	gypsum board
material	CX	wood	M1	G.P	CX	CX
thickness mm	16	90	90	13	16	16
gauge						
spacing mm		406		610		
surface density kg/m <sup>2</sup>	11.0		2.3		11.1	11.1
linear density kg/m		1.6				
total weight kg	81.7	46.8	17.3	3.8	82.3	82.2
fastener spacing - edge mm	406				305	305
fastener spacing - field mm	406				610	305
fastener top track pattern	c					
fastener base track pattern	c					a
stud attached to top track		yes				
double header		yes				
orientation	vertical			horizontal	horizontal	vertical

TL-93-155  
STC 50



G16\_WS90(610)\_GFB90\_RC13(406)\_2G16

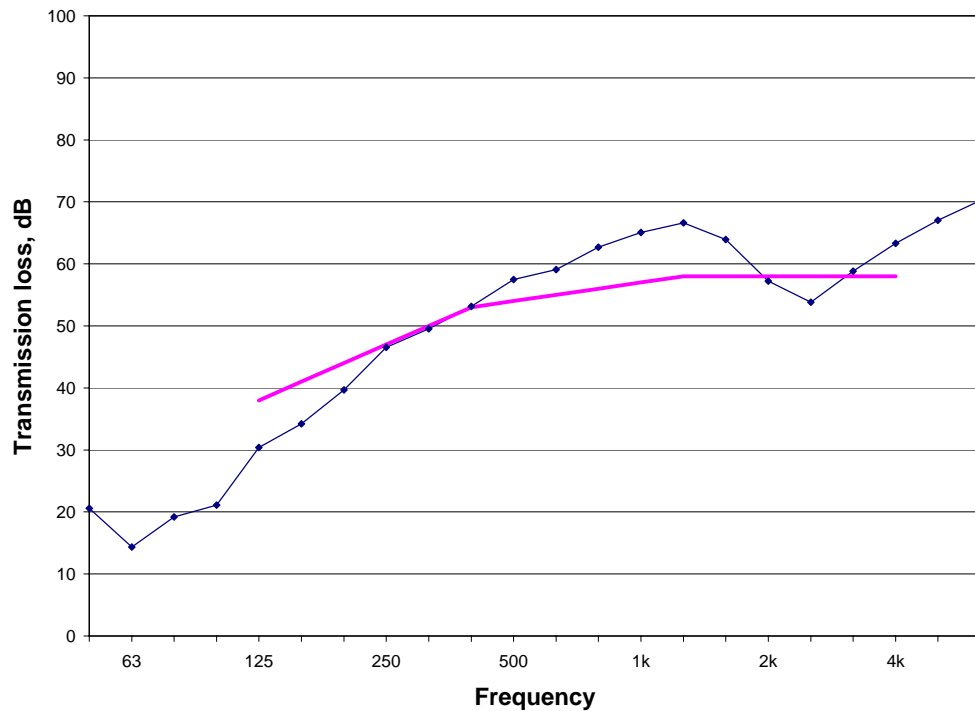
Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm wood studs at 610 mm on centre
3	90 mm of glass fibre insulation in cavity
4	resilient channels at 406 mm on centre
5	single layer of 16 mm type X gypsum board
6	single layer of 16 mm type X gypsum board



TestID	TL-93-099
STC	54
50 Hz	20.6
63 Hz	14.3
80 Hz	19.2
100 Hz	21.1
125 Hz	30.4
160 Hz	34.2
200 Hz	39.7
250 Hz	46.6
315 Hz	49.5
400 Hz	53.1
500 Hz	57.5
630 Hz	59.1
800 Hz	62.7
1000 Hz	65.1
1250 Hz	66.6
1600 Hz	63.9
2000 Hz	57.2
2500 Hz	53.8
3150 Hz	58.8
4000 Hz	63.3
5000 Hz	67.0
6300 Hz	70.2

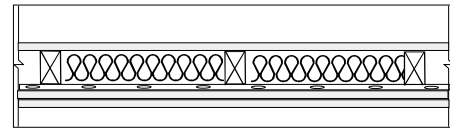
TL-93-099	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	stud	insulation	resilient	gypsum board	gypsum board
material	CX	wood	G1	G.P.	CX	CX
thickness mm	16	90	90	13	16	16
gauge						
spacing mm		610		406		
surface density kg/m <sup>2</sup>	11.0		1.1		11.3	11.0
linear density kg/m		1.3				
total weight kg	82.0	29.1	8.0	5.3	83.6	81.5
fastener spacing - edge mm	305				305	305
fastener spacing - field mm	305				610	305
fastener top track pattern	c					
fastener base track pattern	c					
stud attached to top track		yes				
double header						
orientation	vertical			horizontal	horizontal	vertical

TL-93-099  
STC 54



G16\_WS90(610)\_GFB90\_RC13(610)\_2G16

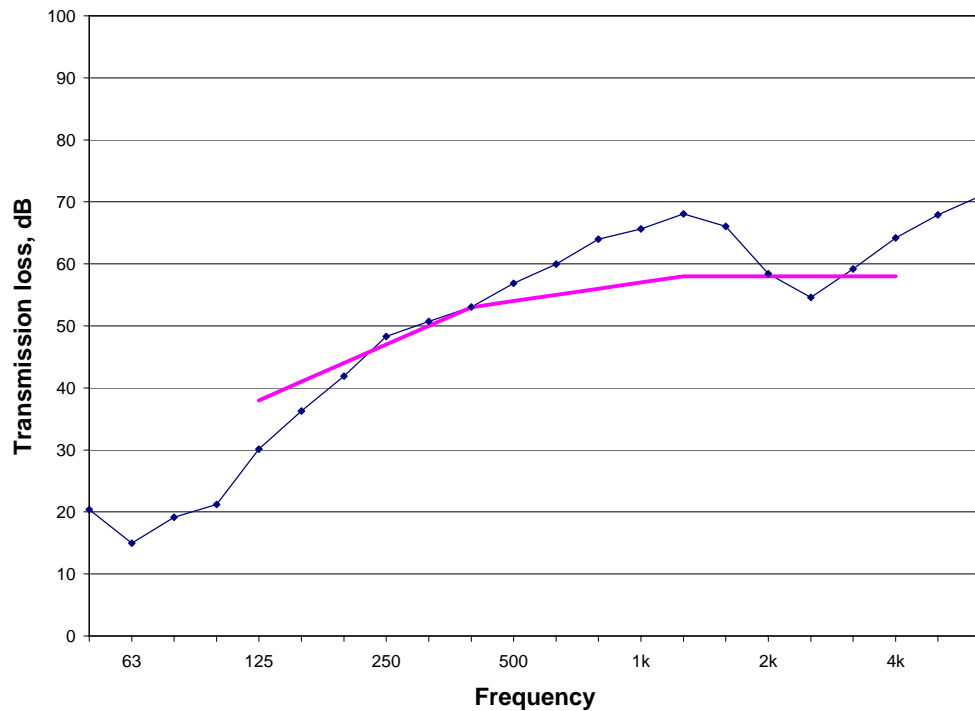
Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm wood studs at 610 mm on centre
3	90 mm of glass fibre insulation in cavity
4	resilient channels at 610 mm on centre
5	single layer of 16 mm type X gypsum board
6	single layer of 16 mm type X gypsum board



TestID	TL-93-085
STC	54
50 Hz	20.4
63 Hz	15.0
80 Hz	19.1
100 Hz	21.2
125 Hz	30.1
160 Hz	36.3
200 Hz	41.9
250 Hz	48.3
315 Hz	50.7
400 Hz	53.0
500 Hz	56.9
630 Hz	59.9
800 Hz	64.0
1000 Hz	65.6
1250 Hz	68.1
1600 Hz	66.1
2000 Hz	58.4
2500 Hz	54.6
3150 Hz	59.2
4000 Hz	64.2
5000 Hz	67.9
6300 Hz	71.0

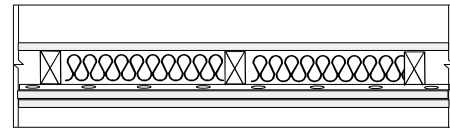
TL-93-085	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	stud	insulation	resilient	gypsum board	gypsum board
material	CX	wood	G1	G.P.	CX	CX
thickness mm	16	90	90	13	16	16
gauge						
spacing mm		610		610		
surface density kg/m <sup>2</sup>	10.9		1.1		11.0	10.9
linear density kg/m		1.3				
total weight kg	81.3	29.1	8.0	3.8	81.6	81.3
fastener spacing - edge mm	305				305	305
fastener spacing - field mm	305				610	305
fastener top track pattern	c					
fastener base track pattern	c					
stud attached to top track		yes				
double header						
orientation	vertical			horizontal	horizontal	vertical

TL-93-085  
STC 54



G16\_WS90(610)\_MFB90\_RC13(610)\_2G16

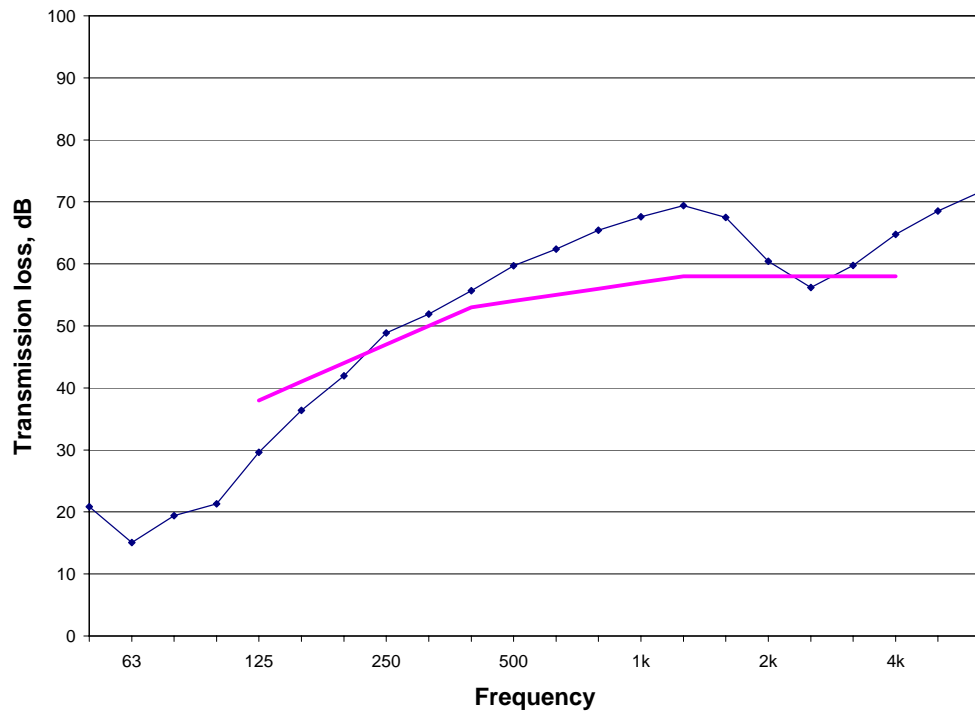
Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm wood studs at 610 mm on centre
3	90 mm of mineral fibre insulation in cavity
4	resilient channels at 610 mm on centre
5	single layer of 16 mm type X gypsum board
6	single layer of 16 mm type X gypsum board



TestID	TL-93-091
STC	54
50 Hz	20.9
63 Hz	15.1
80 Hz	19.4
100 Hz	21.3
125 Hz	29.6
160 Hz	36.4
200 Hz	41.9
250 Hz	48.9
315 Hz	51.9
400 Hz	55.7
500 Hz	59.7
630 Hz	62.4
800 Hz	65.4
1000 Hz	67.6
1250 Hz	69.4
1600 Hz	67.5
2000 Hz	60.4
2500 Hz	56.2
3150 Hz	59.7
4000 Hz	64.8
5000 Hz	68.5
6300 Hz	71.6

TL-93-091	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	stud	insulation	resilient	gypsum board	gypsum board
material	CX	wood	M1	G.P.	CX	CX
thickness mm	16	90	90	13	16	16
gauge						
spacing mm		610		610		
surface density kg/m <sup>2</sup>	10.8		2.7		10.9	10.9
linear density kg/m		1.3				
total weight kg	80.6	29.1	20.2	3.8	81.0	81.1
fastener spacing - edge mm	305				305	305
fastener spacing - field mm	305				610	305
fastener top track pattern	c					
fastener base track pattern	c					
stud attached to top track		yes				
double header						
orientation	vertical			horizontal	horizontal	vertical

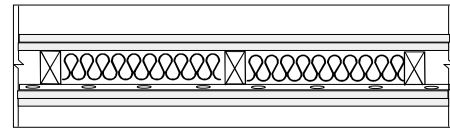
TL-93-091  
STC 54





2G13\_WS90(406)\_CFL90\_RC13(610)\_2G13

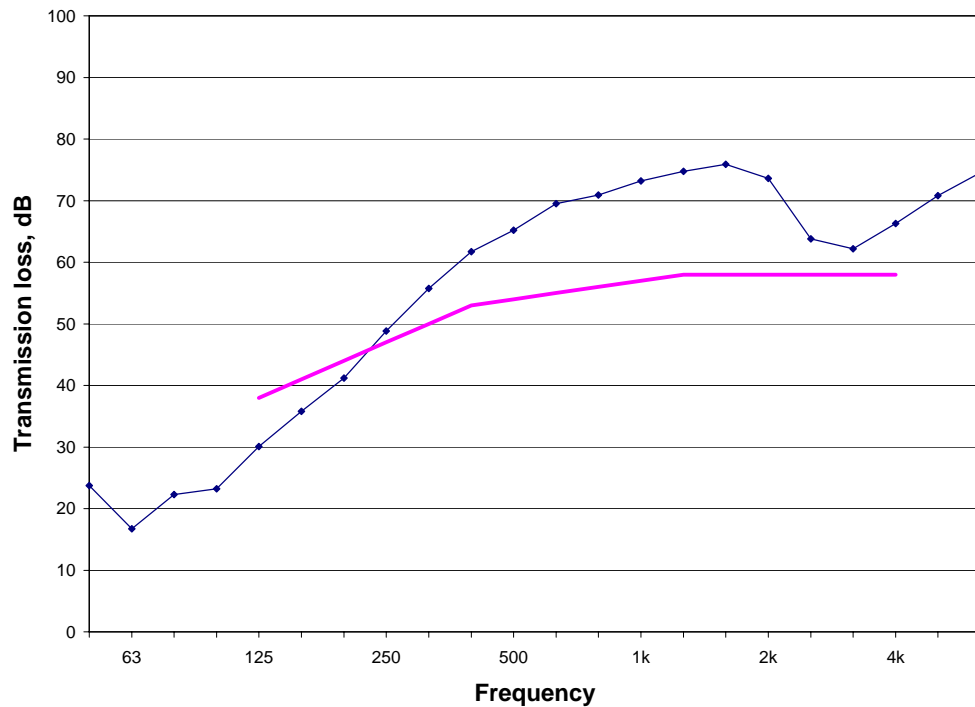
Element	Description:
1	single layer of 13 mm type X gypsum board
2	single layer of 13 mm type X gypsum board
3	90 mm wood studs at 406 mm on centre
4	90 mm of blown cellulose fibre insulation in cavity
5	resilient channels at 610 mm on centre
6	single layer of 13 mm type X gypsum board
7	single layer of 13 mm type X gypsum board



TestID	TL-93-173
STC	54
50 Hz	23.7
63 Hz	16.7
80 Hz	22.3
100 Hz	23.2
125 Hz	30.1
160 Hz	35.8
200 Hz	41.2
250 Hz	48.8
315 Hz	55.7
400 Hz	61.7
500 Hz	65.2
630 Hz	69.5
800 Hz	70.9
1000 Hz	73.2
1250 Hz	74.8
1600 Hz	75.9
2000 Hz	73.6
2500 Hz	63.8
3150 Hz	62.2
4000 Hz	66.3
5000 Hz	70.8
6300 Hz	74.6

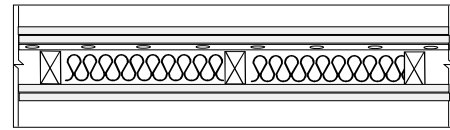
TL-93-173	element 1	element 2	element 3	element 4	element 5	element 6	element 7
type	gypsum board	gypsum board	stud	insulation	resilient	gypsum board	gypsum board
material	AX	AX	wood	C2	G.P.	AX	AX
thickness mm	13	13	90	90	13	13	13
gauge							
spacing mm			406		610		
surface density kg/m <sup>2</sup>	10.0	10.0		4.8		10.0	10.0
linear density kg/m			1.4				
total weight kg	74.2	74.4	41.3	32.7	3.8	74.0	74.2
fastener spacing - edge mm	406	610				305	406
fastener spacing - field mm	406	610				610	406
fastener top track pattern	c	c					
fastener base track pattern	c	c					
stud attached to top track			yes				
double header			yes				
orientation	vertical	vertical			horizontal	horizontal	vertical

TL-93-173  
STC 54



2G13\_RC13(610)\_WS90(406)\_GFB90\_2G13

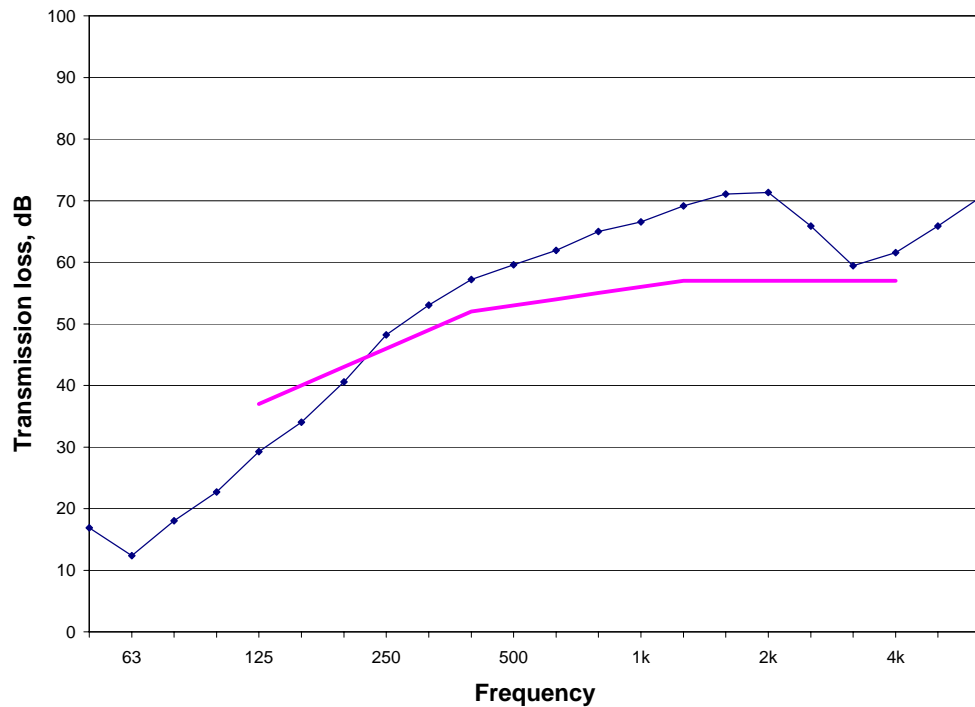
Element	Description:
1	single layer of 13 mm gypsum board
2	single layer of 13 mm gypsum board
3	resilient channels at 610 mm on centre
4	90 mm wood studs at 406 mm on centre
5	90 mm of glass fibre insulation in cavity
6	single layer of 13 mm gypsum board
7	single layer of 13 mm gypsum board



TestID	TL-94-004
STC	53
50 Hz	16.9
63 Hz	12.4
80 Hz	18.0
100 Hz	22.7
125 Hz	29.2
160 Hz	34.0
200 Hz	40.6
250 Hz	48.2
315 Hz	53.1
400 Hz	57.2
500 Hz	59.6
630 Hz	61.9
800 Hz	65.0
1000 Hz	66.5
1250 Hz	69.1
1600 Hz	71.1
2000 Hz	71.3
2500 Hz	65.9
3150 Hz	59.4
4000 Hz	61.6
5000 Hz	65.9
6300 Hz	70.5

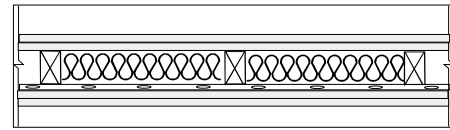
TL-94-004	element 1	element 2	element 3	element 4	element 5	element 6	element 7
type	gypsum board	gypsum board	resilient	stud	insulation	gypsum board	gypsum board
material	BL	BL	G.P.	wood	G1	BL	BL
thickness mm	13	13	13	90	90	13	13
gauge							
spacing mm			610	406			
surface density kg/m <sup>2</sup>	7.2	7.2			1.1	7.3	7.2
linear density kg/m				1.4			
total weight kg	53.5	53.7	4.0	41.0	7.8	54.3	53.6
fastener spacing - edge mm	305	610				610	406
fastener spacing - field mm	305	610				610	406
fastener top track pattern						c	c
fastener base track pattern						c	c
stud attached to top track				yes			
double header				yes			
orientation	horizontal	horizontal	horizontal			vertical	vertical

TL-94-004  
STC 53



2G13\_WS90(406)\_GFB90\_RC13(610)\_2G13

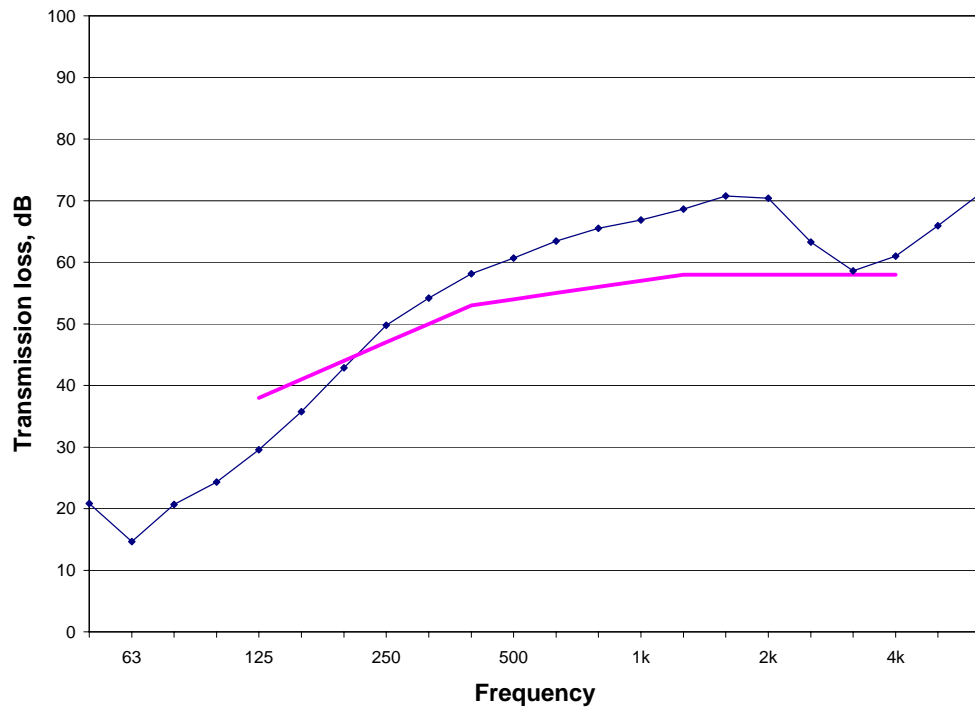
Element	Description:
1	single layer of 13 mm gypsum board
2	single layer of 13 mm gypsum board
3	90 mm wood studs at 406 mm on centre
4	90 mm of glass fibre insulation in cavity
5	resilient channels at 610 mm on centre
6	single layer of 13 mm gypsum board
7	single layer of 13 mm gypsum board



TestID	TL-93-130
STC	54
50 Hz	20.8
63 Hz	14.6
80 Hz	20.7
100 Hz	24.3
125 Hz	29.6
160 Hz	35.8
200 Hz	42.9
250 Hz	49.8
315 Hz	54.2
400 Hz	58.2
500 Hz	60.7
630 Hz	63.5
800 Hz	65.5
1000 Hz	66.9
1250 Hz	68.6
1600 Hz	70.7
2000 Hz	70.4
2500 Hz	63.3
3150 Hz	58.6
4000 Hz	61.0
5000 Hz	65.9
6300 Hz	71.2

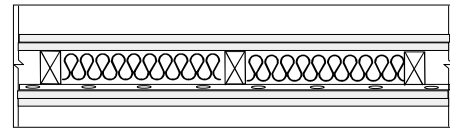
TL-93-130	element 1	element 2	element 3	element 4	element 5	element 6	element 7
type	gypsum board	gypsum board	stud	insulation	resilient	gypsum board	gypsum board
material	B	B	wood	G1	G.P.	B	B
thickness mm	13	13	90	90	13	13	13
gauge							
spacing mm			406		610		
surface density kg/m <sup>2</sup>	8.2	8.2		1.0		8.3	8.2
linear density kg/m			1.4				
total weight kg	61.0	61.1	40.7	7.6	3.6	61.5	60.6
fastener spacing - edge mm	406	610				305	305
fastener spacing - field mm	406	610				610	305
fastener top track pattern	c	c					
fastener base track pattern	c	c					
stud attached to top track			yes				
double header			yes				
orientation	vertical	vertical			horizontal	horizontal	vertical

TL-93-130  
STC 54



2G13\_WS90(406)\_GFB90\_RC13(610)\_2G13

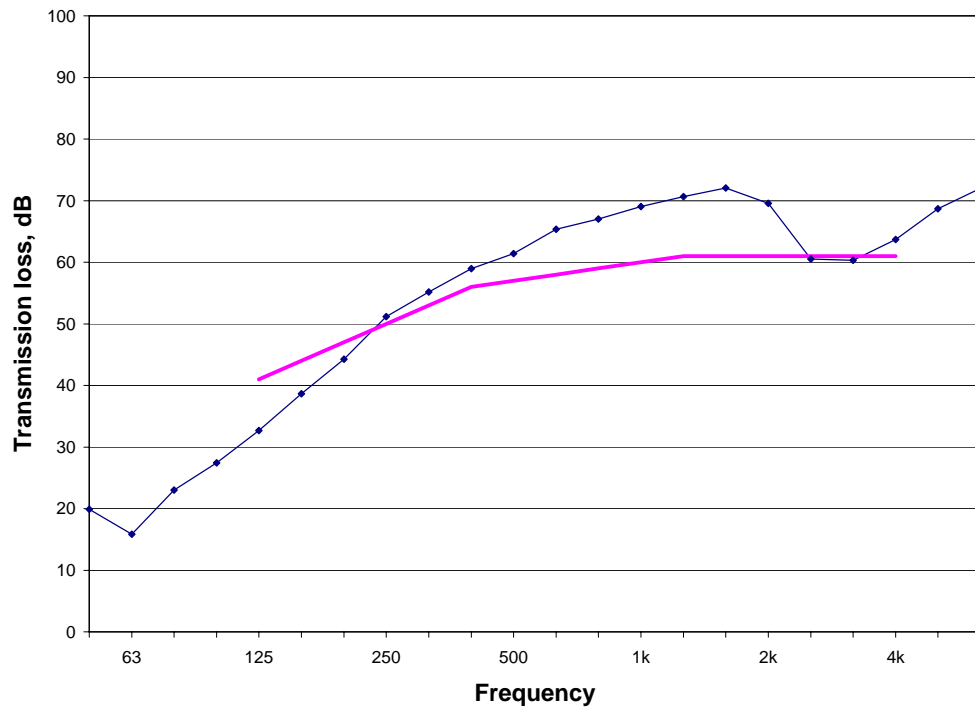
Element	Description:
1	single layer of 13 mm type X gypsum board
2	single layer of 13 mm type X gypsum board
3	90 mm wood studs at 406 mm on centre
4	90 mm of glass fibre insulation in cavity
5	resilient channels at 610 mm on centre
6	single layer of 13 mm type X gypsum board
7	single layer of 13 mm type X gypsum board



TestID	TL-93-127
STC	57
50 Hz	19.9
63 Hz	15.8
80 Hz	23.0
100 Hz	27.4
125 Hz	32.7
160 Hz	38.6
200 Hz	44.3
250 Hz	51.2
315 Hz	55.2
400 Hz	59.0
500 Hz	61.4
630 Hz	65.4
800 Hz	67.0
1000 Hz	69.1
1250 Hz	70.6
1600 Hz	72.0
2000 Hz	69.6
2500 Hz	60.5
3150 Hz	60.3
4000 Hz	63.7
5000 Hz	68.7
6300 Hz	72.0

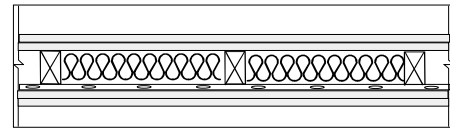
TL-93-127	element 1	element 2	element 3	element 4	element 5	element 6	element 7
type	gypsum board	gypsum board	stud	insulation	resilient	gypsum board	gypsum board
material	AX	AX	wood	G1	G.P.	AX	AX
thickness mm	13	13	90	90	13	13	13
gauge							
spacing mm			406		610		
surface density kg/m <sup>2</sup>	10.0	9.9		1.0		10.1	9.9
linear density kg/m			1.4				
total weight kg	74.0	73.6	40.7	7.6	3.6	74.9	73.5
fastener spacing - edge mm	406	610				305	305
fastener spacing - field mm	406	610				610	305
fastener top track pattern	c	c					
fastener base track pattern	c	c					
stud attached to top track			yes				
double header			yes				
orientation	vertical	vertical			horizontal	horizontal	vertical

TL-93-127  
STC 57



2G13\_WS90(406)\_GFB90\_RC13(610)\_2G13

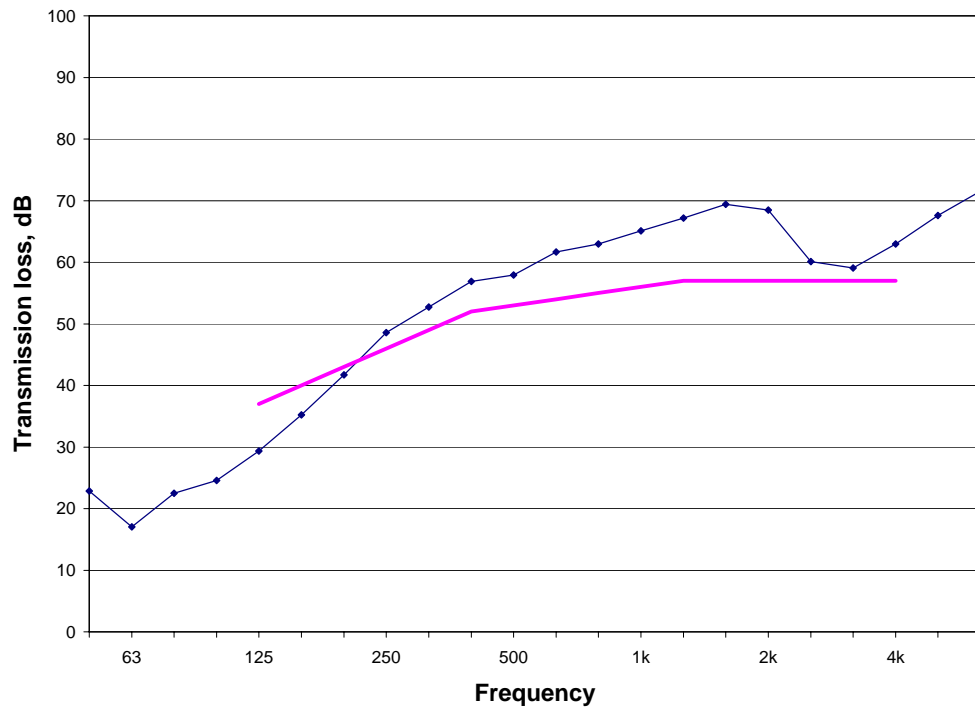
Element	Description:
1	single layer of 13 mm type X gypsum board
2	single layer of 13 mm type X gypsum board
3	90 mm wood studs at 406 mm on centre
4	90 mm of glass fibre insulation in cavity
5	resilient channels at 610 mm on centre
6	single layer of 13 mm type X gypsum board
7	single layer of 13 mm type X gypsum board



TestID	TL-93-151
STC	53
50 Hz	22.8
63 Hz	17.0
80 Hz	22.5
100 Hz	24.6
125 Hz	29.4
160 Hz	35.2
200 Hz	41.7
250 Hz	48.6
315 Hz	52.8
400 Hz	56.9
500 Hz	57.9
630 Hz	61.7
800 Hz	63.0
1000 Hz	65.1
1250 Hz	67.2
1600 Hz	69.4
2000 Hz	68.5
2500 Hz	60.1
3150 Hz	59.1
4000 Hz	63.0
5000 Hz	67.6
6300 Hz	71.6

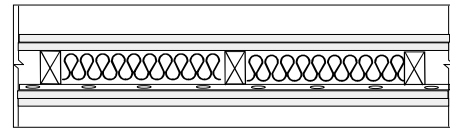
TL-93-151	element 1	element 2	element 3	element 4	element 5	element 6	element 7
type	gypsum board	gypsum board	stud	insulation	resilient	gypsum board	gypsum board
material	BX	BX	wood	G1	G.P.	BX	BX
thickness mm	13	13	90	90	13	13	13
gauge							
spacing mm			406		610		
surface density kg/m <sup>2</sup>	9.5	9.4		1.0		9.5	9.5
linear density kg/m			1.6				
total weight kg	70.7	70.2	46.8	7.7	3.8	70.9	70.6
fastener spacing - edge mm	406	610				305	305
fastener spacing - field mm	406	610				610	305
fastener top track pattern	c	c					
fastener base track pattern	c	c					
stud attached to top track			yes				
double header			yes				
orientation	vertical	vertical			horizontal	horizontal	vertical

TL-93-151  
STC 53



2G13\_WS90(406)\_GFB90\_RC13(610)\_2G13

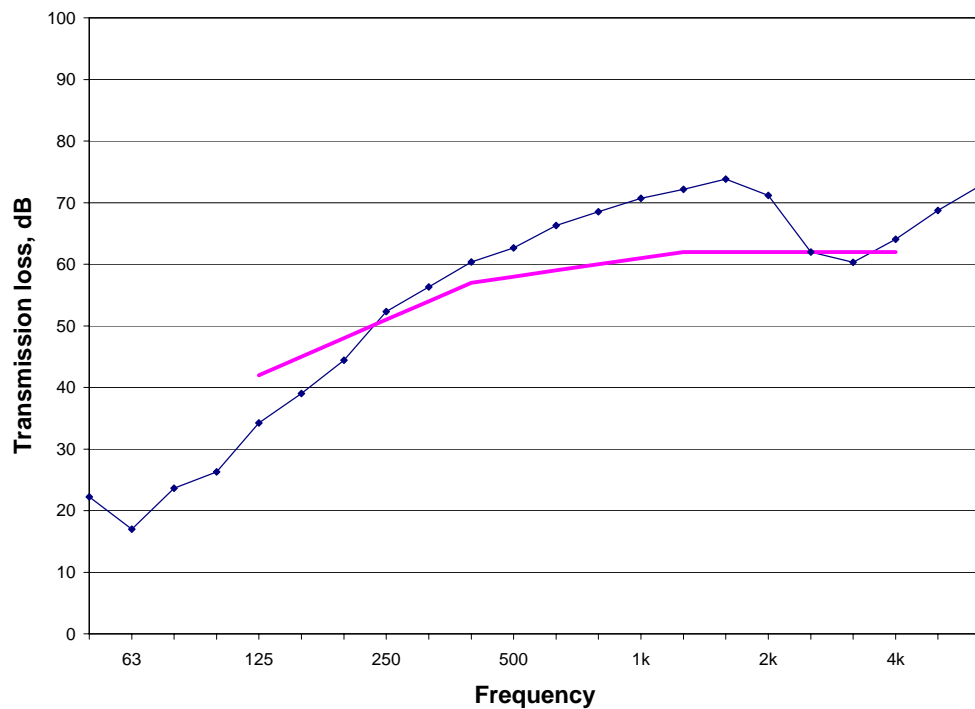
Element	Description:
1	single layer of 13 mm type X gypsum board
2	single layer of 13 mm type X gypsum board
3	90 mm wood studs at 406 mm on centre
4	90 mm of glass fibre insulation in cavity
5	resilient channels at 610 mm on centre
6	single layer of 13 mm type X gypsum board
7	single layer of 13 mm type X gypsum board



TestID	TL-93-181
STC	58
50 Hz	22.3
63 Hz	17.0
80 Hz	23.6
100 Hz	26.3
125 Hz	34.2
160 Hz	39.0
200 Hz	44.4
250 Hz	52.3
315 Hz	56.3
400 Hz	60.3
500 Hz	62.6
630 Hz	66.3
800 Hz	68.5
1000 Hz	70.7
1250 Hz	72.1
1600 Hz	73.8
2000 Hz	71.2
2500 Hz	62.0
3150 Hz	60.3
4000 Hz	64.1
5000 Hz	68.7
6300 Hz	72.8

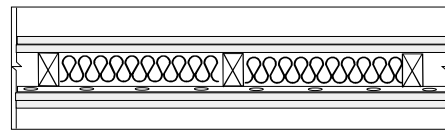
TL-93-181	element 1	element 2	element 3	element 4	element 5	element 6	element 7
type	gypsum board	gypsum board	stud	insulation	resilient	gypsum board	gypsum board
material	AX	AX	wood	G2	G.P.	AX	AX
thickness mm	13	13	90	90	13	13	13
gauge							
spacing mm			406		610		
surface density kg/m <sup>2</sup>	10.0	10.0		1.3		10.0	10.1
linear density kg/m			1.4				
total weight kg	74.5	74.4	41.3	10.0	3.8	74.5	75.0
fastener spacing - edge mm	406	610				305	305
fastener spacing - field mm	406	610				610	305
fastener top track pattern	c	c					
fastener base track pattern	c	c					
stud attached to top track			yes				
double header			yes				
orientation	vertical	vertical			horizontal	horizontal	vertical

TL-93-181  
STC 58



2G13\_WS90(406)\_MFB90\_RC13(610)\_2G13

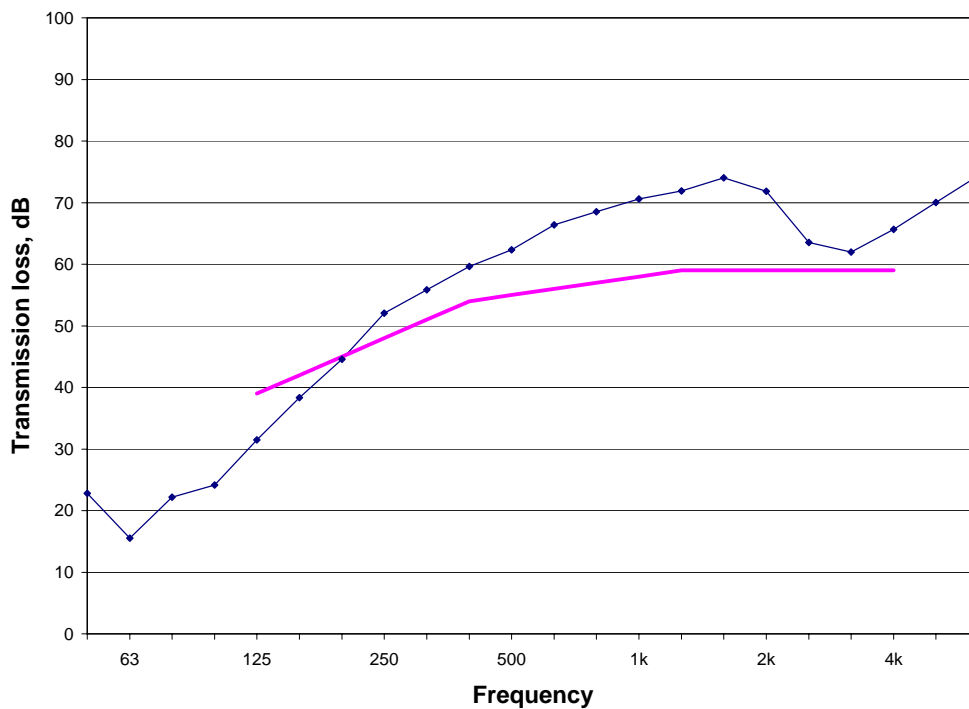
Element	Description:
1	single layer of 13 mm type X gypsum board
2	single layer of 13 mm type X gypsum board
3	90 mm wood studs at 406 mm on centre
4	90 mm of mineral fibre insulation in cavity
5	resilient channels at 610 mm on centre
6	single layer of 13 mm type X gypsum board
7	single layer of 13 mm type X gypsum board



TestID	TL-93-187
STC	55
50 Hz	22.8
63 Hz	15.5
80 Hz	22.2
100 Hz	24.2
125 Hz	31.5
160 Hz	38.3
200 Hz	44.6
250 Hz	52.1
315 Hz	55.8
400 Hz	59.6
500 Hz	62.3
630 Hz	66.4
800 Hz	68.5
1000 Hz	70.6
1250 Hz	71.9
1600 Hz	74.0
2000 Hz	71.9
2500 Hz	63.5
3150 Hz	62.0
4000 Hz	65.7
5000 Hz	70.0
6300 Hz	74.4

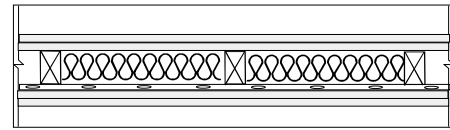
TL-93-187	element 1	element 2	element 3	element 4	element 5	element 6	element 7
type	gypsum board	gypsum board	stud	insulation	resilient	gypsum board	gypsum board
material	AX	AX	wood	M1	G.P.	AX	AX
thickness mm	13	13	90	90	13	13	13
gauge							
spacing mm			406		610		
surface density kg/m <sup>2</sup>	10.1	10.1		2.4		10.0	10.1
linear density kg/m			1.4				
total weight kg	75.4	75.1	41.3	17.8	3.8	74.5	75.4
fastener spacing - edge mm	406	610				305	305
fastener spacing - field mm	406	610				610	305
fastener top track pattern	c	c					
fastener base track pattern	c	c					
stud attached to top track			yes				
double header			yes				
orientation	vertical	vertical			horizontal	horizontal	vertical

TL-93-187  
STC 55



2G13\_WS90(610)\_GFB65\_RC13(610)\_2G13

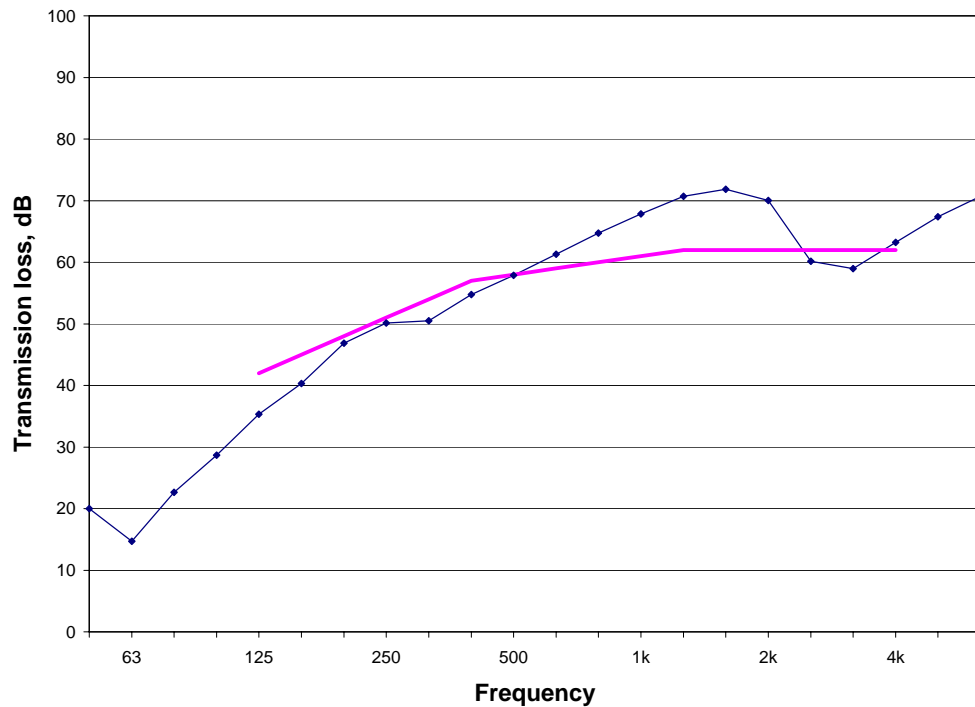
Element	Description:
1	single layer of 13 mm type X gypsum board
2	single layer of 13 mm type X gypsum board
3	90 mm wood studs at 610 mm on centre
4	65 mm of glass fibre insulation in cavity
5	resilient channels at 610 mm on centre
6	single layer of 13 mm type X gypsum board
7	single layer of 13 mm type X gypsum board



TestID	TL-93-095
STC	58
50 Hz	20.0
63 Hz	14.7
80 Hz	22.6
100 Hz	28.7
125 Hz	35.3
160 Hz	40.3
200 Hz	46.9
250 Hz	50.1
315 Hz	50.5
400 Hz	54.7
500 Hz	57.9
630 Hz	61.3
800 Hz	64.7
1000 Hz	67.8
1250 Hz	70.7
1600 Hz	71.8
2000 Hz	70.0
2500 Hz	60.2
3150 Hz	59.0
4000 Hz	63.2
5000 Hz	67.4
6300 Hz	70.7

TL-93-095	element 1	element 2	element 3	element 4	element 5	element 6	element 7
type	gypsum board	gypsum board	stud	insulation	resilient	gypsum board	gypsum board
material	AX	AX	wood	G1	G.P.	AX	AX
thickness mm	13	13	90	65	13	13	13
gauge							
spacing mm			610		610		
surface density kg/m <sup>2</sup>	9.9	9.9		0.7		10.1	10.0
linear density kg/m			1.3				
total weight kg	73.9	73.9	29.1	5.2	3.8	75.0	74.3
fastener spacing - edge mm	305	610				305	305
fastener spacing - field mm	305	610				610	305
fastener top track pattern	c	c					
fastener base track pattern	c	c					
stud attached to top track			yes				
double header							
orientation	vertical	vertical			horizontal	horizontal	vertical

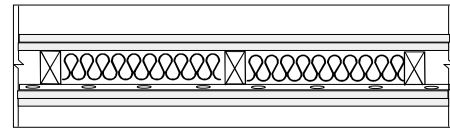
TL-93-095  
STC 58





2G13\_WS90(610)\_GFB90\_RC13(610)\_2G13

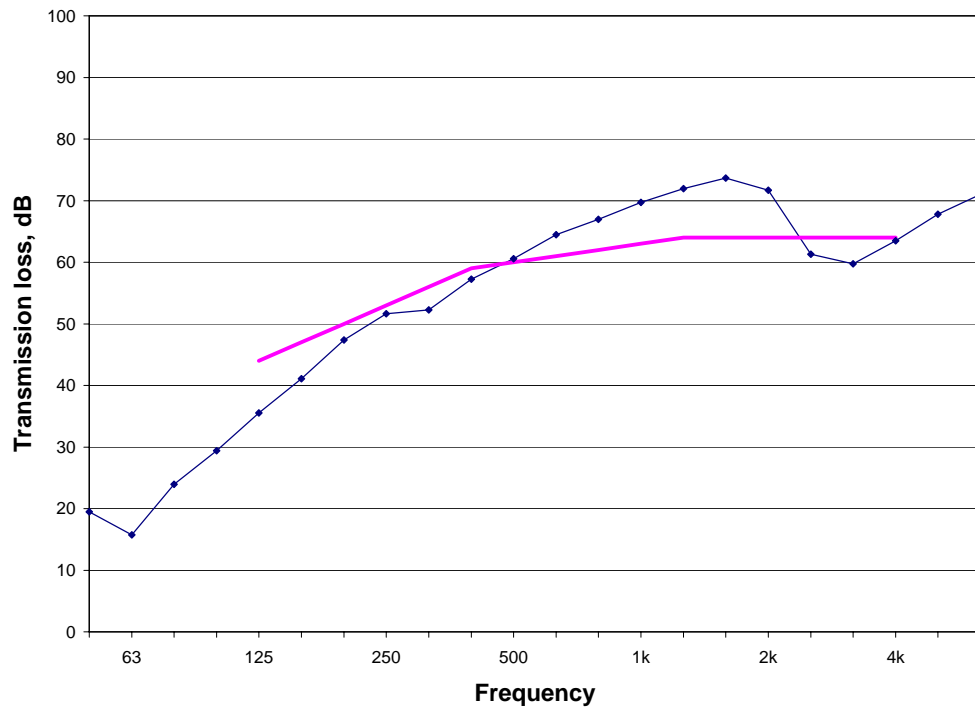
Element	Description:
1	single layer of 13 mm type X gypsum board
2	single layer of 13 mm type X gypsum board
3	90 mm wood studs at 610 mm on centre
4	90 mm of glass fibre insulation in cavity
5	resilient channels at 610 mm on centre
6	single layer of 13 mm type X gypsum board
7	single layer of 13 mm type X gypsum board



TestID	TL-93-096
STC	60
50 Hz	19.5
63 Hz	15.7
80 Hz	23.9
100 Hz	29.4
125 Hz	35.5
160 Hz	41.1
200 Hz	47.4
250 Hz	51.6
315 Hz	52.3
400 Hz	57.3
500 Hz	60.6
630 Hz	64.4
800 Hz	67.0
1000 Hz	69.7
1250 Hz	71.9
1600 Hz	73.6
2000 Hz	71.7
2500 Hz	61.3
3150 Hz	59.7
4000 Hz	63.5
5000 Hz	67.8
6300 Hz	71.0

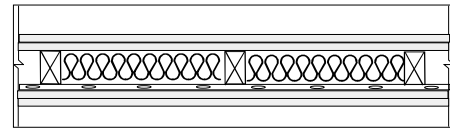
TL-93-096	element 1	element 2	element 3	element 4	element 5	element 6	element 7
type	gypsum board	gypsum board	stud	insulation	resilient	gypsum board	gypsum board
material	AX	AX	wood	G1	G.P.	AX	AX
thickness mm	13	13	90	90	13	13	13
gauge							
spacing mm			610		610		
surface density kg/m <sup>2</sup>	9.9	9.9		1.1		10.0	9.6
linear density kg/m			1.3				
total weight kg	73.9	73.9	29.1	8.0	3.8	74.2	71.3
fastener spacing - edge mm	305	610				305	305
fastener spacing - field mm	305	610				610	305
fastener top track pattern	c	c					
fastener base track pattern	c	c					
stud attached to top track			yes				
double header							
orientation	vertical	vertical			horizontal	horizontal	vertical

TL-93-096  
STC 60



2G16\_WS90(406)\_GFB90\_RC13(406)\_2G16

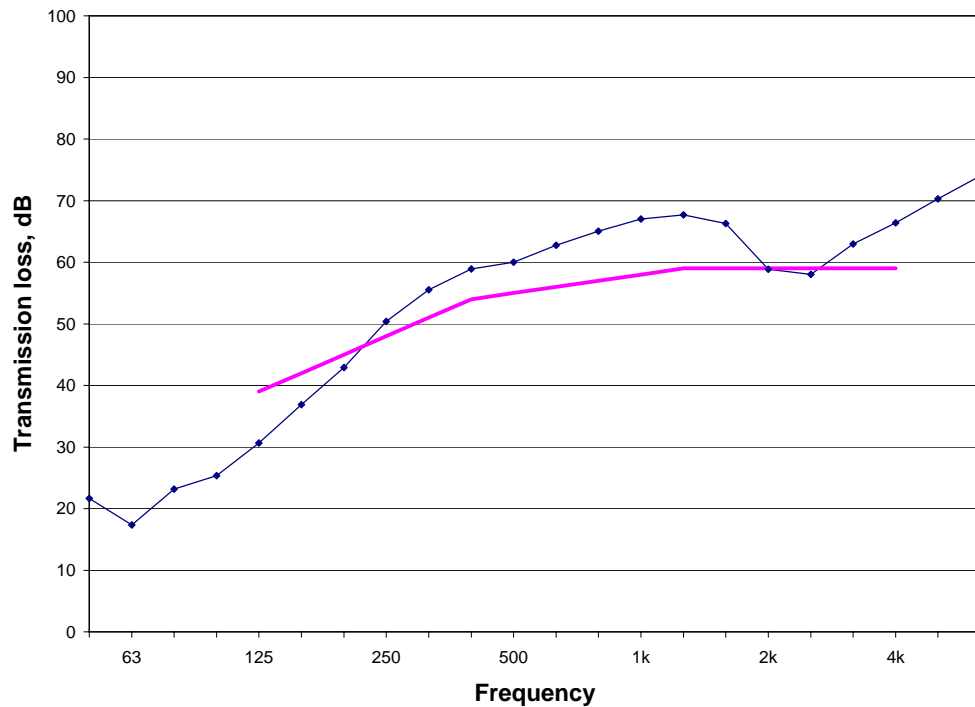
Element	Description:
1	single layer of 16 mm type X gypsum board
2	single layer of 16 mm type X gypsum board
3	90 mm wood studs at 406 mm on centre
4	90 mm of glass fibre insulation in cavity
5	resilient channels at 406 mm on centre
6	single layer of 16 mm type X gypsum board
7	single layer of 16 mm type X gypsum board



TestID	TL-93-119
STC	55
50 Hz	21.6
63 Hz	17.4
80 Hz	23.1
100 Hz	25.3
125 Hz	30.6
160 Hz	36.9
200 Hz	42.9
250 Hz	50.4
315 Hz	55.5
400 Hz	58.9
500 Hz	60.0
630 Hz	62.7
800 Hz	65.0
1000 Hz	67.0
1250 Hz	67.7
1600 Hz	66.3
2000 Hz	58.8
2500 Hz	58.0
3150 Hz	63.0
4000 Hz	66.4
5000 Hz	70.3
6300 Hz	74.0

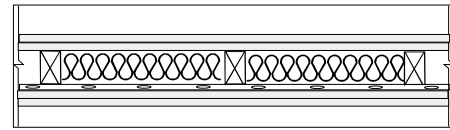
TL-93-119	element 1	element 2	element 3	element 4	element 5	element 6	element 7
type	gypsum board	gypsum board	stud	insulation	resilient	gypsum board	gypsum board
material	CX	CX	wood	G1	G.P	CX	CX
thickness mm	16	16	90	90	13	16	16
gauge							
spacing mm			406		406		
surface density kg/m <sup>2</sup>	10.8	11.1		1.0		11.1	10.9
linear density kg/m			1.4				
total weight kg	80.6	82.7	40.7	7.6	5.3	82.6	81.3
fastener spacing - edge mm	406	610				305	305
fastener spacing - field mm	406	610				610	305
fastener top track pattern	c	c					
fastener base track pattern	c	c					
stud attached to top track			yes				
double header			yes				
orientation	vertical	vertical			horizontal	horizontal	vertical

TL-93-119  
STC 55



2G16\_WS90(406)\_CFL90\_RC13(610)\_2G16

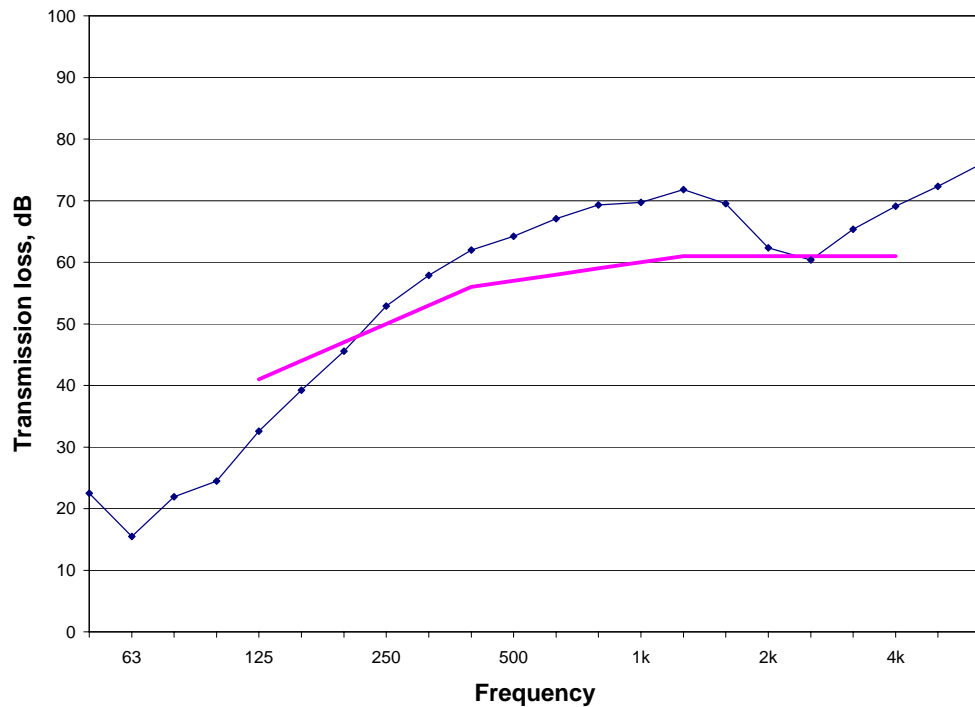
Element	Description:
1	single layer of 16 mm type X gypsum board
2	single layer of 16 mm type X gypsum board
3	90 mm wood studs at 406 mm on centre
4	90 mm of blown cellulose fibre insulation in cavity
5	resilient channels at 610 mm on centre
6	single layer of 16 mm type X gypsum board
7	single layer of 16 mm type X gypsum board



TestID	TL-93-108
STC	57
50 Hz	22.5
63 Hz	15.5
80 Hz	21.9
100 Hz	24.5
125 Hz	32.6
160 Hz	39.2
200 Hz	45.6
250 Hz	52.9
315 Hz	57.8
400 Hz	62.0
500 Hz	64.2
630 Hz	67.1
800 Hz	69.3
1000 Hz	69.7
1250 Hz	71.8
1600 Hz	69.5
2000 Hz	62.3
2500 Hz	60.3
3150 Hz	65.3
4000 Hz	69.1
5000 Hz	72.3
6300 Hz	75.9

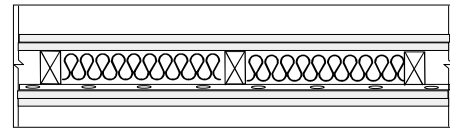
TL-93-108	element 1	element 2	element 3	element 4	element 5	element 6	element 7
type	gypsum board	gypsum board	stud	insulation	resilient	gypsum board	gypsum board
material	CX	CX	wood	C2	G.P.	CX	CX
thickness mm	16	16	90	90	13	16	16
gauge							
spacing mm			406		610		
surface density kg/m <sup>2</sup>	10.9	11.0		5.4		11.0	11.0
linear density kg/m			1.4				
total weight kg	80.8	81.4	40.7	36.2	3.8	81.6	81.8
fastener spacing - edge mm	406	610				305	305
fastener spacing - field mm	406	610				610	305
fastener top track pattern	c	c					
fastener base track pattern	c	c					
stud attached to top track			yes				
double header			yes				
orientation	vertical	vertical			horizontal	horizontal	vertical

TL-93-108  
STC 57



2G16\_WS90(406)\_CFS40\_RC13(610)\_2G16

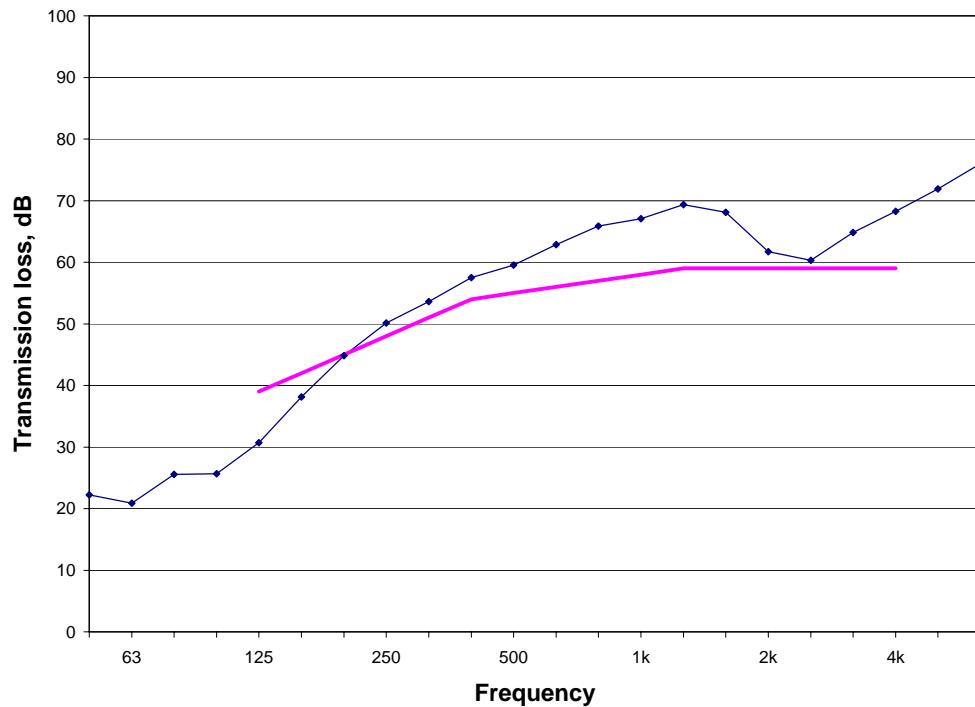
Element	Description:
1	single layer of 16 mm type X gypsum board
2	single layer of 16 mm type X gypsum board
3	90 mm wood studs at 406 mm on centre
4	40 mm of sprayed cellulose fibre insulation in cavity
5	resilient channels at 610 mm on centre
6	single layer of 16 mm type X gypsum board
7	single layer of 16 mm type X gypsum board



TestID	TL-93-146
STC	55
50 Hz	22.2
63 Hz	20.9
80 Hz	25.6
100 Hz	25.7
125 Hz	30.7
160 Hz	38.1
200 Hz	44.9
250 Hz	50.1
315 Hz	53.6
400 Hz	57.5
500 Hz	59.5
630 Hz	62.9
800 Hz	65.9
1000 Hz	67.1
1250 Hz	69.4
1600 Hz	68.1
2000 Hz	61.7
2500 Hz	60.3
3150 Hz	64.8
4000 Hz	68.3
5000 Hz	71.9
6300 Hz	76.0

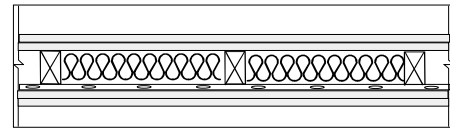
TL-93-146	element 1	element 2	element 3	element 4	element 5	element 6	element 7
type	gypsum board	gypsum board	stud	insulation	resilient	gypsum board	gypsum board
material	CX	CX	wood	C1	G.P.	CX	CX
thickness mm	16	16	90	40	13	16	16
gauge							
spacing mm			406		610		
surface density kg/m <sup>2</sup>	11.1	11.0		2.8		11.1	11.1
linear density kg/m			1.6				
total weight kg	82.2	82.0	46.8	21.0	3.8	82.5	82.2
fastener spacing - edge mm	406	610				305	305
fastener spacing - field mm	406	610				610	305
fastener top track pattern	c	c					
fastener base track pattern	c	c					
stud attached to top track			yes				
double header			yes				
orientation	vertical	vertical			horizontal	horizontal	vertical

TL-93-146  
STC 55



2G16\_WS90(406)\_GFB90\_RC13(610)\_2G16

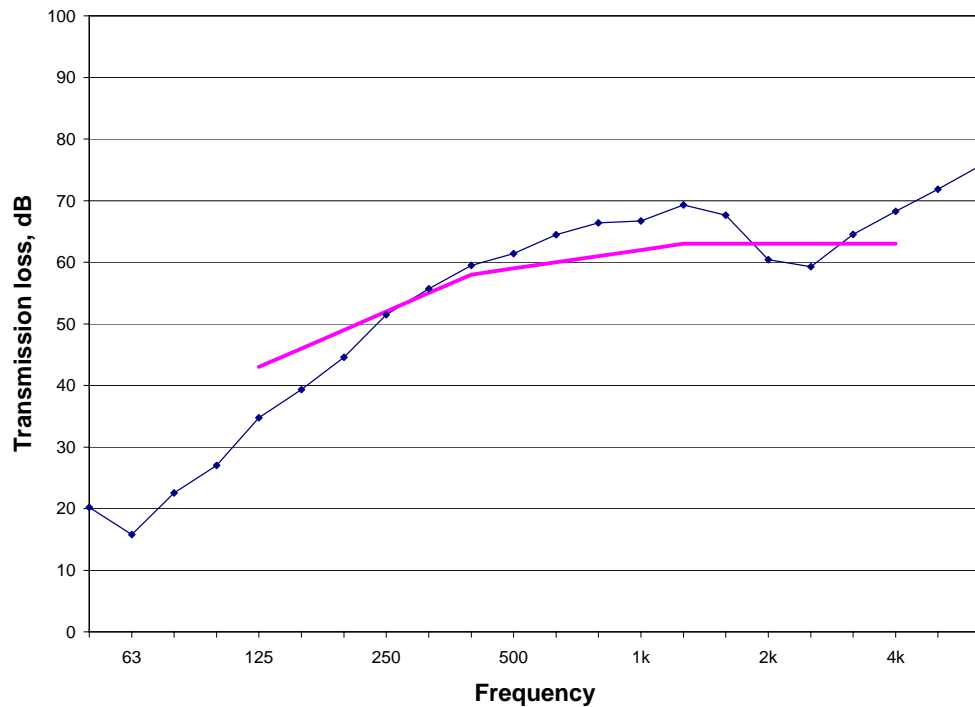
Element	Description:
1	single layer of 16 mm type X gypsum board
2	single layer of 16 mm type X gypsum board
3	90 mm wood studs at 406 mm on centre
4	90 mm of glass fibre insulation in cavity
5	resilient channels at 610 mm on centre
6	single layer of 16 mm type X gypsum board
7	single layer of 16 mm type X gypsum board



TestID	TL-93-115
STC	59
50 Hz	20.2
63 Hz	15.8
80 Hz	22.6
100 Hz	27.0
125 Hz	34.8
160 Hz	39.3
200 Hz	44.6
250 Hz	51.5
315 Hz	55.7
400 Hz	59.5
500 Hz	61.4
630 Hz	64.5
800 Hz	66.4
1000 Hz	66.7
1250 Hz	69.3
1600 Hz	67.6
2000 Hz	60.4
2500 Hz	59.3
3150 Hz	64.5
4000 Hz	68.3
5000 Hz	71.9
6300 Hz	75.7

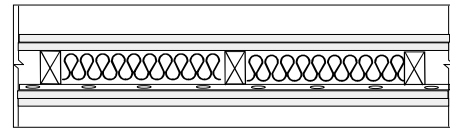
TL-93-115	element 1	element 2	element 3	element 4	element 5	element 6	element 7
type	gypsum board	gypsum board	stud	insulation	resilient	gypsum board	gypsum board
material	CX	CX	wood	G1	G.P	CX	CX
thickness mm	16	16	90	90	13	16	16
gauge							
spacing mm			406		610		
surface density kg/m <sup>2</sup>	10.8	11.1		1.0		11.0	11.1
linear density kg/m			1.4				
total weight kg	80.5	82.7	40.7	7.6	3.8	81.9	82.5
fastener spacing - edge mm	406	610				305	305
fastener spacing - field mm	406	610				610	305
fastener top track pattern	c	c					
fastener base track pattern	c	c					
stud attached to top track			yes				
double header			yes				
orientation	vertical	vertical			horizontal	horizontal	vertical

TL-93-115  
STC 59



2G16\_WS90(610)\_GFB90\_RC13(406)\_2G16

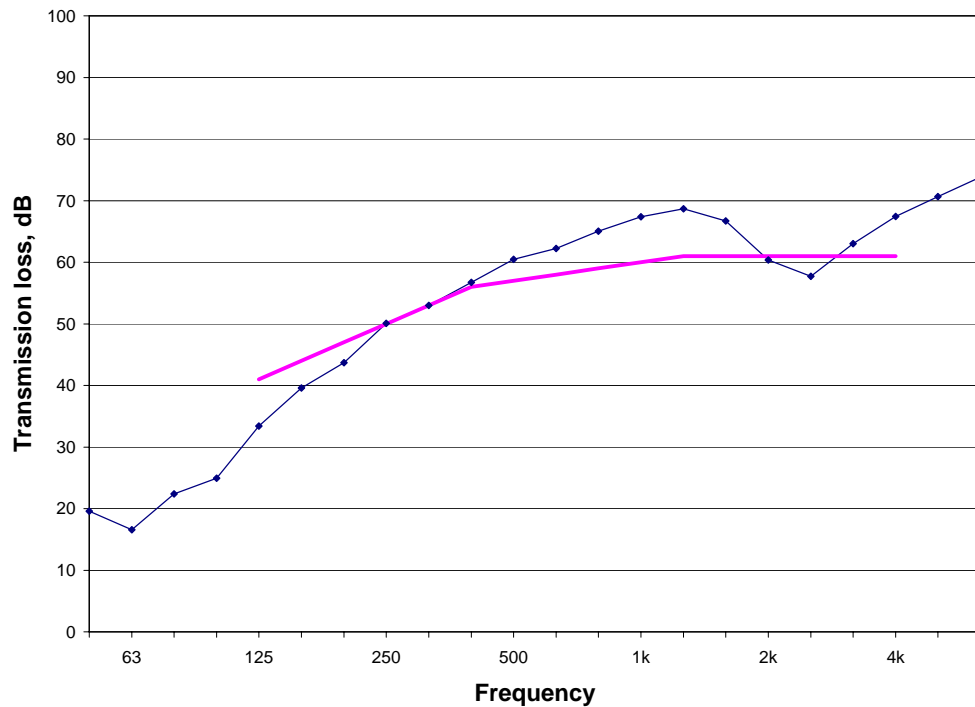
Element	Description:
1	single layer of 16 mm type X gypsum board
2	single layer of 16 mm type X gypsum board
3	90 mm wood studs at 610 mm on centre
4	90 mm of glass fibre insulation in cavity
5	resilient channels at 406 mm on centre
6	single layer of 16 mm type X gypsum board
7	single layer of 16 mm type X gypsum board



TestID	TL-93-100
STC	57
50 Hz	19.6
63 Hz	16.6
80 Hz	22.4
100 Hz	24.9
125 Hz	33.4
160 Hz	39.6
200 Hz	43.7
250 Hz	50.1
315 Hz	53.0
400 Hz	56.7
500 Hz	60.5
630 Hz	62.2
800 Hz	65.0
1000 Hz	67.4
1250 Hz	68.7
1600 Hz	66.7
2000 Hz	60.3
2500 Hz	57.7
3150 Hz	63.0
4000 Hz	67.4
5000 Hz	70.7
6300 Hz	73.8

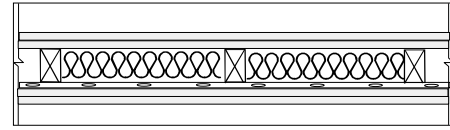
TL-93-100	element 1	element 2	element 3	element 4	element 5	element 6	element 7
type	gypsum board	gypsum board	stud	insulation	resilient	gypsum board	gypsum board
material	CX	CX	wood	G1	G.P.	CX	CX
thickness mm	16	16	90	90	13	16	16
gauge							
spacing mm			610		406		
surface density kg/m <sup>2</sup>	10.9	11.0		1.1		11.3	11.0
linear density kg/m			1.3				
total weight kg	81.1	82.0	29.1	8.0	5.3	83.6	81.5
fastener spacing - edge mm	305	610				305	305
fastener spacing - field mm	305	610				610	305
fastener top track pattern	c	c					
fastener base track pattern	c	c					
stud attached to top track			yes				
double header							
orientation	vertical	vertical			horizontal	horizontal	vertical

TL-93-100  
STC 57



2G16\_WS90(610)\_GFB90\_RC13(610)\_2G16

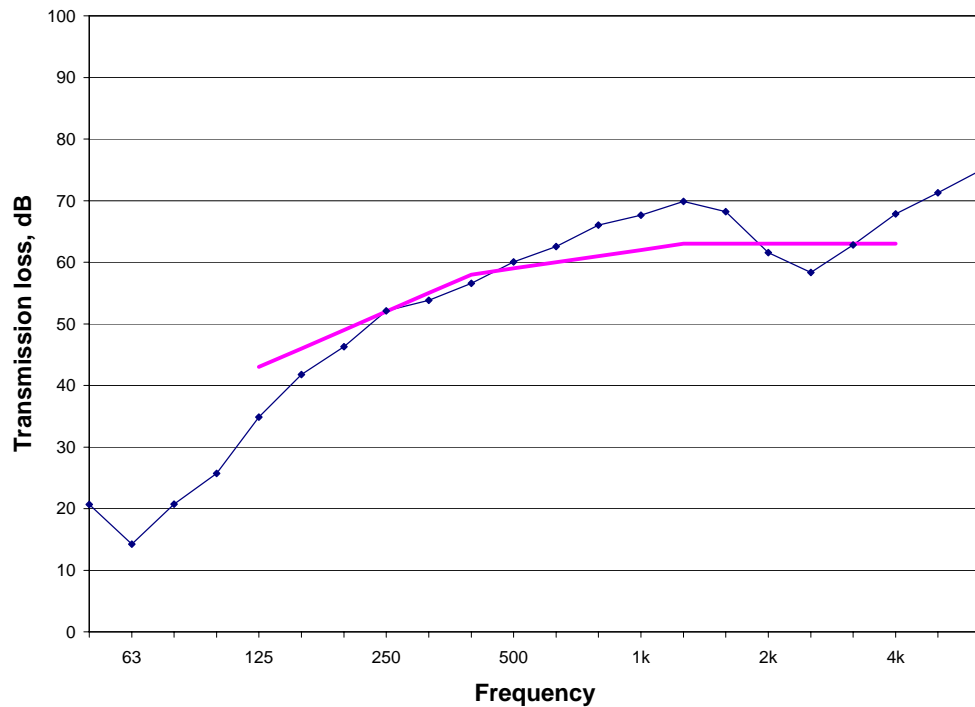
Element	Description:
1	single layer of 16 mm type X gypsum board
2	single layer of 16 mm type X gypsum board
3	90 mm wood studs at 610 mm on centre
4	90 mm of glass fibre insulation in cavity
5	resilient channels at 610 mm on centre
6	single layer of 16 mm type X gypsum board
7	single layer of 16 mm type X gypsum board



TestID	TL-93-086
STC	59
50 Hz	20.7
63 Hz	14.2
80 Hz	20.7
100 Hz	25.7
125 Hz	34.9
160 Hz	41.8
200 Hz	46.3
250 Hz	52.1
315 Hz	53.8
400 Hz	56.6
500 Hz	60.0
630 Hz	62.5
800 Hz	66.0
1000 Hz	67.6
1250 Hz	69.9
1600 Hz	68.2
2000 Hz	61.6
2500 Hz	58.4
3150 Hz	62.8
4000 Hz	67.8
5000 Hz	71.3
6300 Hz	74.9

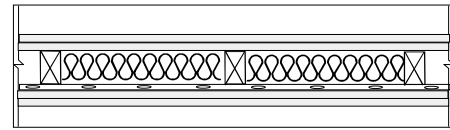
TL-93-086	element 1	element 2	element 3	element 4	element 5	element 6	element 7
type	gypsum board	gypsum board	stud	insulation	resilient	gypsum board	gypsum board
material	CX	CX	wood	G1	G.P.	CX	CX
thickness mm	16	16	90	90	13	16	16
gauge							
spacing mm			610		610		
surface density kg/m <sup>2</sup>	11.1	10.9		1.1		11.0	10.9
linear density kg/m			1.3				
total weight kg	82.2	81.3	29.1	8.0	3.8	81.6	81.3
fastener spacing - edge mm	305	610				305	305
fastener spacing - field mm	305	610				610	305
fastener top track pattern	c	c					
fastener base track pattern	c	c					
stud attached to top track			yes				
double header							
orientation	vertical	vertical			horizontal	horizontal	vertical

TL-93-086  
STC 59



2G16\_WS90(610)\_MFB90\_RC13(610)\_2G16

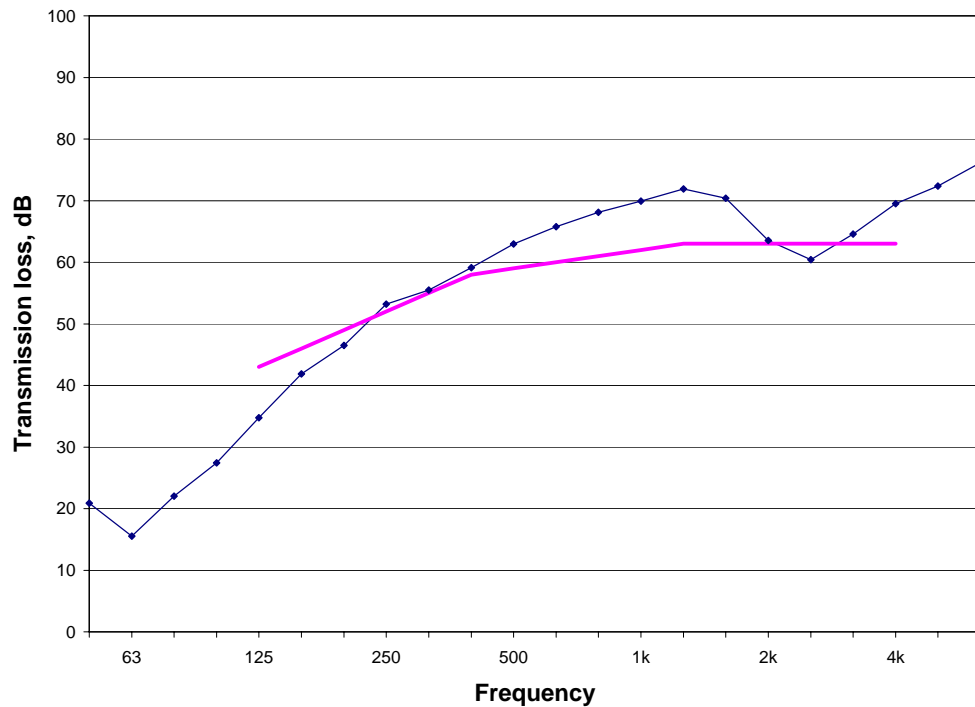
Element	Description:
1	single layer of 16 mm type X gypsum board
2	single layer of 16 mm type X gypsum board
3	90 mm wood studs at 610 mm on centre
4	90 mm of mineral fibre insulation in cavity
5	resilient channels at 610 mm on centre
6	single layer of 16 mm type X gypsum board
7	single layer of 16 mm type X gypsum board



TestID	TL-93-092
STC	59
50 Hz	20.9
63 Hz	15.5
80 Hz	22.0
100 Hz	27.4
125 Hz	34.7
160 Hz	41.9
200 Hz	46.5
250 Hz	53.2
315 Hz	55.5
400 Hz	59.1
500 Hz	63.0
630 Hz	65.7
800 Hz	68.1
1000 Hz	69.9
1250 Hz	71.9
1600 Hz	70.4
2000 Hz	63.6
2500 Hz	60.4
3150 Hz	64.6
4000 Hz	69.5
5000 Hz	72.3
6300 Hz	76.2

TL-93-092	element 1	element 2	element 3	element 4	element 5	element 6	element 7
type	gypsum board	gypsum board	stud	insulation	resilient	gypsum board	gypsum board
material	CX	CX	wood	M1	G.P.	CX	CX
thickness mm	16	16	90	90	13	16	16
gauge							
spacing mm			610		610		
surface density kg/m <sup>2</sup>	11.0	10.8		2.7		10.9	10.9
linear density kg/m			1.3				
total weight kg	81.9	80.6	29.1	20.2	3.8	81.0	81.1
fastener spacing - edge mm	305	610				305	305
fastener spacing - field mm	305	610				610	305
fastener top track pattern	c	c					
fastener base track pattern	c	c					
stud attached to top track			yes				
double header							
orientation	vertical	vertical			horizontal	horizontal	vertical

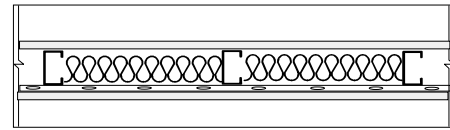
TL-93-092  
STC 59





G13\_SS90(406)\_GFB90\_RC13(610)\_G13

Element	Description:
1	single layer of 13 mm type X gypsum board
2	90 mm steel studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	resilient channels at 610 mm on centre
5	single layer of 13 mm type X gypsum board

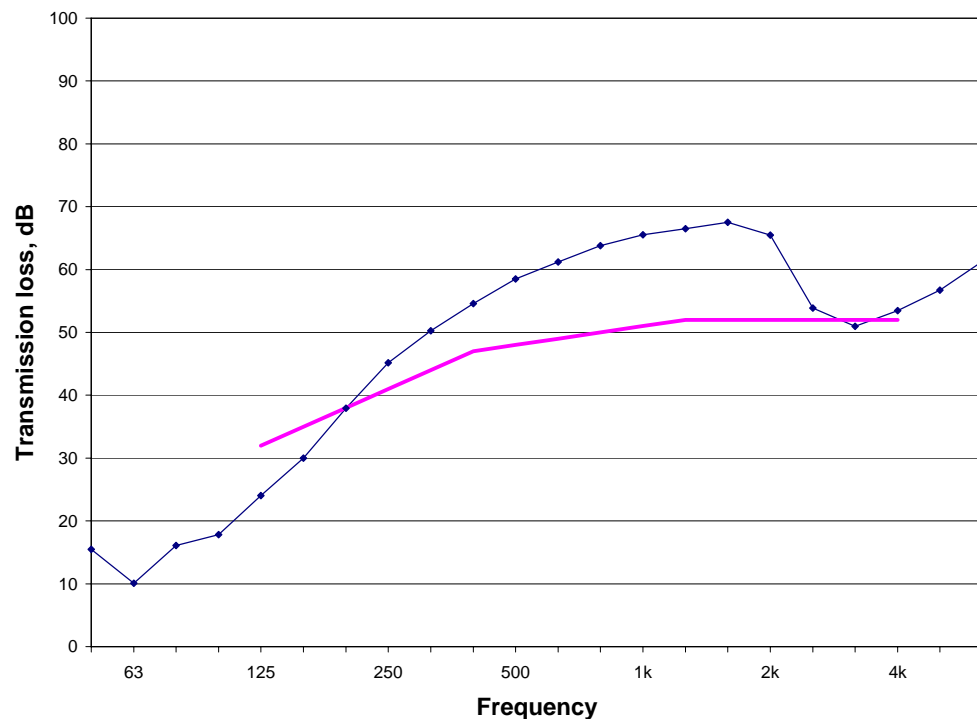


TestID	TL-94-022
STC	48
50 Hz	15.5
63 Hz	10.1
80 Hz	16.1
100 Hz	17.8
125 Hz	24.0
160 Hz	30.0
200 Hz	37.9
250 Hz	45.2
315 Hz	50.2
400 Hz	54.6
500 Hz	58.5
630 Hz	61.2
800 Hz	63.8
1000 Hz	65.5
1250 Hz	66.5
1600 Hz	67.5
2000 Hz	65.5
2500 Hz	53.9
3150 Hz	51.0
4000 Hz	53.5
5000 Hz	56.7
6300 Hz	61.3

TL-94-022

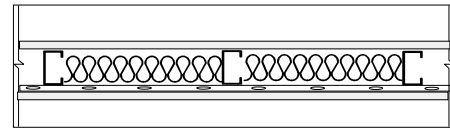
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	resilient	gypsum board
material	AX	steel	G1	G.P.	AX
thickness mm	13	90	90	13	13
gauge		20			
spacing mm		406		610	
surface density kg/m <sup>2</sup>	10.0		1.2		10.1
linear density kg/m		1.3			
total weight kg	74.6	36.4	8.6	4.0	75.2
fastener spacing - edge mm	305				305
fastener spacing - field mm	305				305
fastener top track pattern	a				
fastener base track pattern	a				
stud attached to top track		yes			
double header					
orientation	vertical			horizontal	horizontal

TL-94-022  
STC 48



G16\_SS90(406)\_GFB90\_RC13(610)\_G16

Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm steel studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	resilient channels at 610 mm on centre
5	single layer of 16 mm type X gypsum board

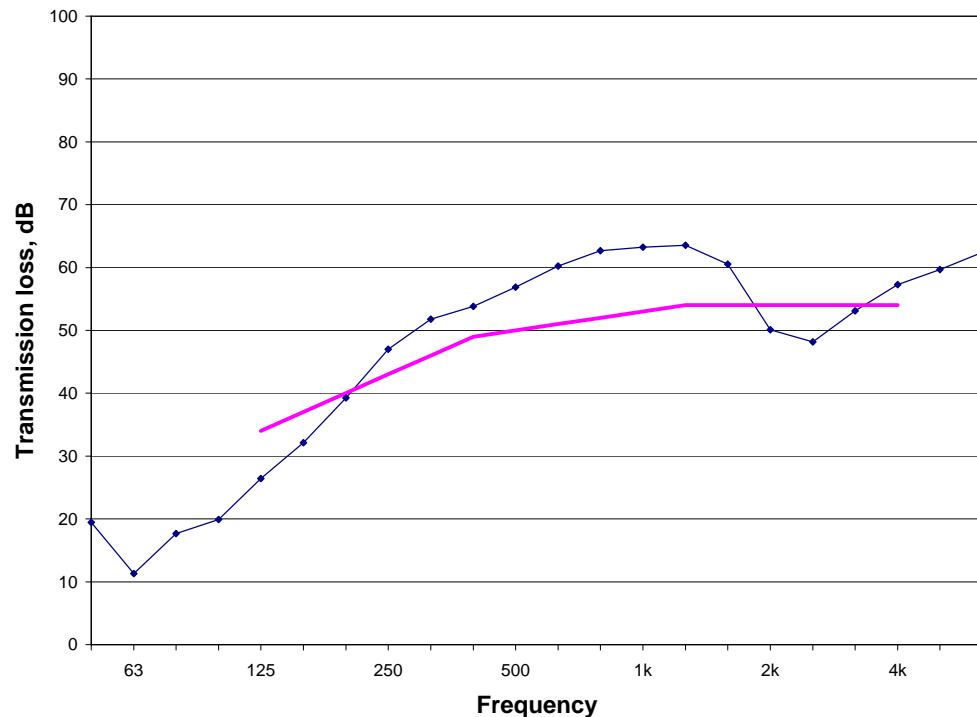


TestID	TL-93-354
STC	50
50 Hz	19.5
63 Hz	11.3
80 Hz	17.7
100 Hz	19.9
125 Hz	26.4
160 Hz	32.1
200 Hz	39.3
250 Hz	47.0
315 Hz	51.8
400 Hz	53.8
500 Hz	56.9
630 Hz	60.3
800 Hz	62.7
1000 Hz	63.2
1250 Hz	63.6
1600 Hz	60.6
2000 Hz	50.1
2500 Hz	48.2
3150 Hz	53.1
4000 Hz	57.3
5000 Hz	59.7
6300 Hz	62.4

TL-93-354

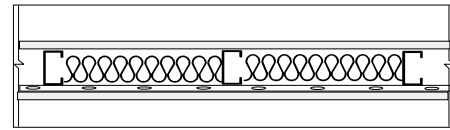
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	resilient	gypsum board
material	CX	steel	G1	G.P.	CX
thickness mm	16	90	90	13	16
gauge		18			
spacing mm		406		610	
surface density kg/m <sup>2</sup>	11.4		1.1		11.5
linear density kg/m		2.0			
total weight kg	84.6	56.8	8.2	4.0	85.5
fastener spacing - edge mm	305				305
fastener spacing - field mm	305				305
fastener top track pattern	a				a
fastener base track pattern	a				a
stud attached to top track		yes			
double header					
orientation	vertical			horizontal	vertical

TL-93-354  
STC 50



G16\_SS90(406)\_GFB90\_RC13(610)\_G16

Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm steel studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	resilient channels at 610 mm on centre
5	single layer of 16 mm type X gypsum board

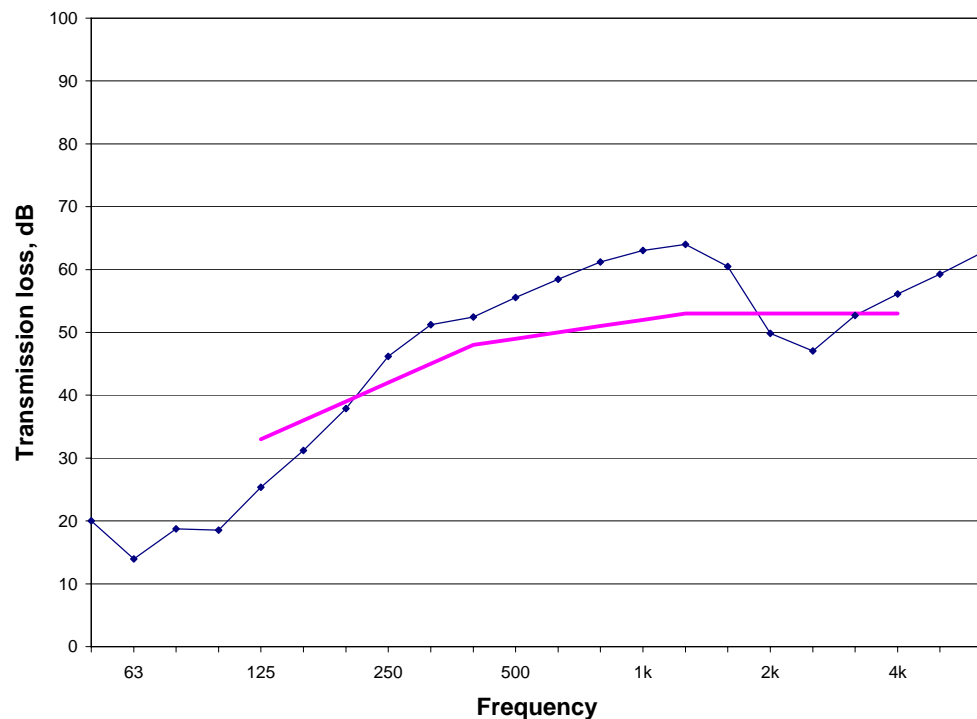


TestID	TL-93-355
STC	49
50 Hz	20.0
63 Hz	13.9
80 Hz	18.7
100 Hz	18.5
125 Hz	25.4
160 Hz	31.2
200 Hz	37.9
250 Hz	46.2
315 Hz	51.2
400 Hz	52.5
500 Hz	55.6
630 Hz	58.5
800 Hz	61.2
1000 Hz	63.0
1250 Hz	64.0
1600 Hz	60.5
2000 Hz	49.8
2500 Hz	47.1
3150 Hz	52.7
4000 Hz	56.1
5000 Hz	59.3
6300 Hz	62.7

TL-93-355

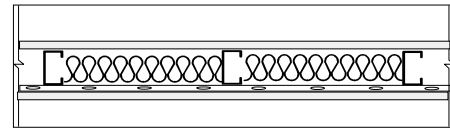
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	resilient	gypsum board
material	CX	steel	G1	G.P.	CX
thickness mm	16	90	90	13	16
gauge		16			
spacing mm		406		610	
surface density kg/m <sup>2</sup>	11.4		1.1		11.5
linear density kg/m		2.4			
total weight kg	84.6	68.4	8.2	3.9	85.5
fastener spacing - edge mm	305				305
fastener spacing - field mm	305				305
fastener top track pattern	a				a
fastener base track pattern	a				a
stud attached to top track		yes			
double header					
orientation	vertical			horizontal	vertical

TL-93-355  
STC 49



G16\_SS90(406)\_GFB90\_RC13(610)\_G16

Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm steel studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	resilient channels at 610 mm on centre
5	single layer of 16 mm type X gypsum board

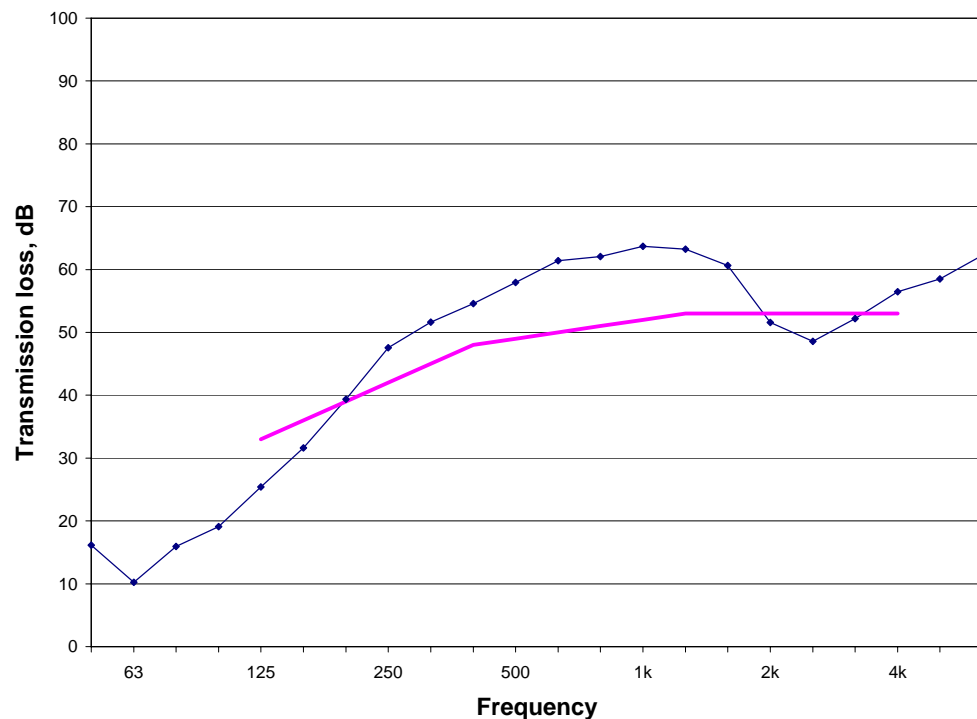


TestID	TL-94-025
STC	49
50 Hz	16.1
63 Hz	10.2
80 Hz	15.9
100 Hz	19.1
125 Hz	25.4
160 Hz	31.6
200 Hz	39.4
250 Hz	47.5
315 Hz	51.6
400 Hz	54.6
500 Hz	57.9
630 Hz	61.4
800 Hz	62.0
1000 Hz	63.7
1250 Hz	63.3
1600 Hz	60.6
2000 Hz	51.6
2500 Hz	48.6
3150 Hz	52.2
4000 Hz	56.5
5000 Hz	58.5
6300 Hz	62.3

TL-94-025

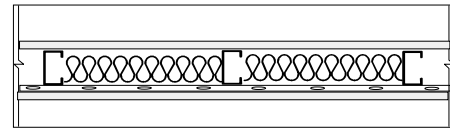
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	resilient	gypsum board
material	CX	steel	G1	G.P.	CX
thickness mm	16	90	90	13	16
gauge		20			
spacing mm		406		610	
surface density kg/m <sup>2</sup>	11.4		1.2		11.2
linear density kg/m		1.3			
total weight kg	84.9	36.4	8.6	4.0	83.5
fastener spacing - edge mm	305				305
fastener spacing - field mm	305				305
fastener top track pattern	a				
fastener base track pattern	a				
stud attached to top track		yes			
double header					
orientation	vertical			horizontal	horizontal

TL-94-025  
STC 49



G16\_SS150(406)\_GFB90\_RC13(610)\_G16

Element	Description:
1	single layer of 16 mm type X gypsum board
2	150 mm steel studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	resilient channels at 610 mm on centre
5	single layer of 16 mm type X gypsum board

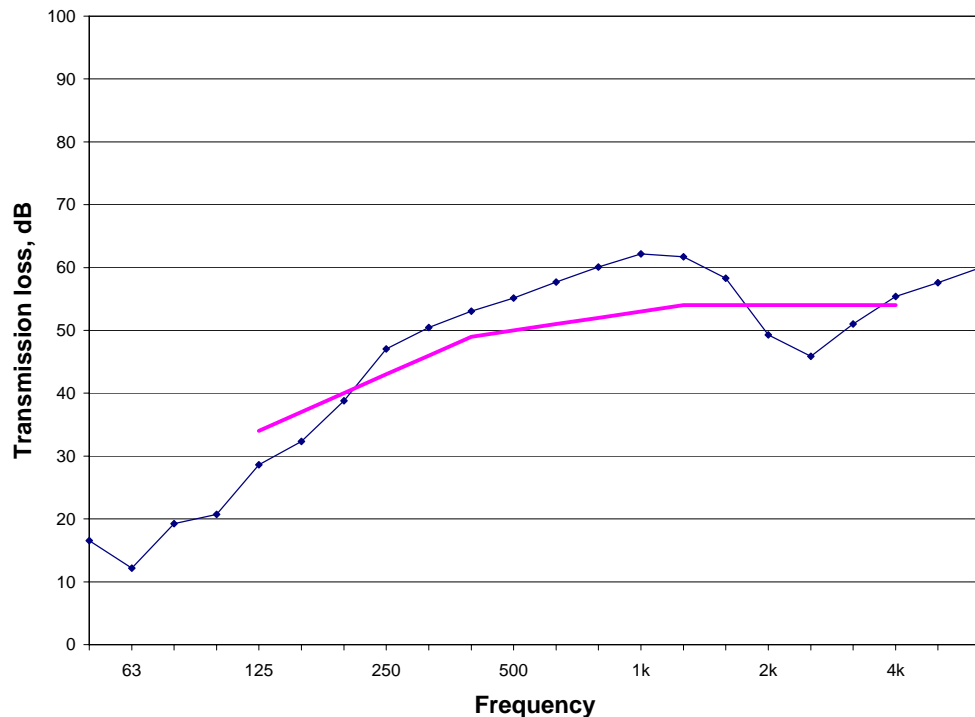


TestID	TL-93-353
STC	50
50 Hz	16.5
63 Hz	12.2
80 Hz	19.2
100 Hz	20.7
125 Hz	28.6
160 Hz	32.3
200 Hz	38.8
250 Hz	47.1
315 Hz	50.5
400 Hz	53.1
500 Hz	55.1
630 Hz	57.7
800 Hz	60.1
1000 Hz	62.2
1250 Hz	61.7
1600 Hz	58.3
2000 Hz	49.3
2500 Hz	45.9
3150 Hz	51.0
4000 Hz	55.4
5000 Hz	57.6
6300 Hz	60.0

TL-93-353

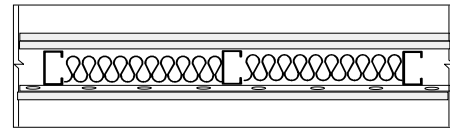
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	resilient	gypsum board
material	CX	steel	G1	G.P.	CX
thickness mm	16	150	90	13	16
gauge		18			
spacing mm		406		610	
surface density kg/m <sup>2</sup>	11.5		1.1		11.1
linear density kg/m		2.4			
total weight kg	85.5	67.4	8.2	4.0	82.4
fastener spacing - edge mm	305				305
fastener spacing - field mm	305				305
fastener top track pattern	a				a
fastener base track pattern	a				a
stud attached to top track		yes			
double header					
orientation	vertical			horizontal	vertical

TL-93-353  
STC 50



2G13\_SS90(406)\_GFB90\_RC13(610)\_G13

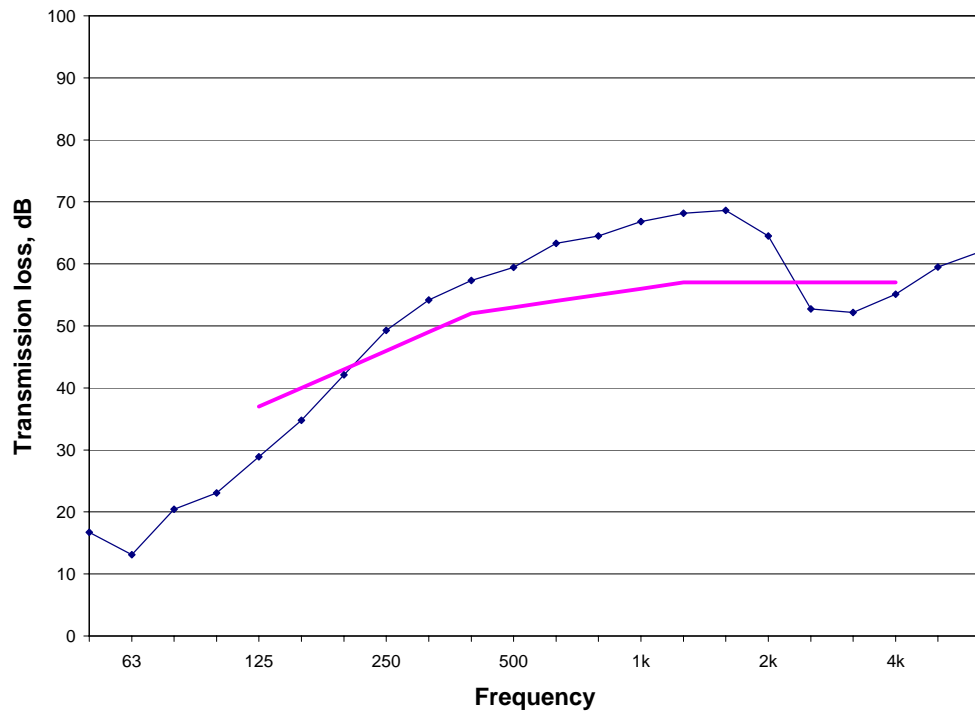
Element	Description:
1	single layer of 13 mm type X gypsum board
2	single layer of 13 mm type X gypsum board
3	90 mm steel studs at 406 mm on centre
4	90 mm of glass fibre insulation in cavity
5	resilient channels at 610 mm on centre
6	single layer of 13 mm type X gypsum board



TestID	TL-94-016
STC	53
50 Hz	16.7
63 Hz	13.1
80 Hz	20.4
100 Hz	23.0
125 Hz	28.9
160 Hz	34.8
200 Hz	42.1
250 Hz	49.3
315 Hz	54.2
400 Hz	57.3
500 Hz	59.4
630 Hz	63.3
800 Hz	64.5
1000 Hz	66.8
1250 Hz	68.1
1600 Hz	68.6
2000 Hz	64.5
2500 Hz	52.7
3150 Hz	52.2
4000 Hz	55.1
5000 Hz	59.5
6300 Hz	62.0

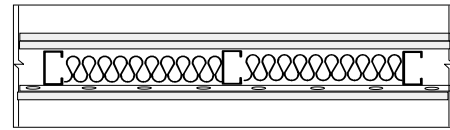
TL-94-016	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	gypsum board	stud	insulation	resilient	gypsum board
material	AX	AX	steel	G1	G.P.	AX
thickness mm	13	13	90	90	13	13
gauge			16			
spacing mm			406		610	
surface density kg/m <sup>2</sup>	10.0	10.1		1.2		10.0
linear density kg/m			2.4			
total weight kg	74.4	75.4	68.4	8.6	3.5	74.5
fastener spacing - edge mm	305	305				305
fastener spacing - field mm	305	610				305
fastener top track pattern	a	a				
fastener base track pattern	a	a				
stud attached to top track			yes			
double header						
orientation	vertical	vertical			horizontal	horizontal

TL-94-016  
STC 53



2G13\_SS90(406)\_GFB90\_RC13(610)\_G13

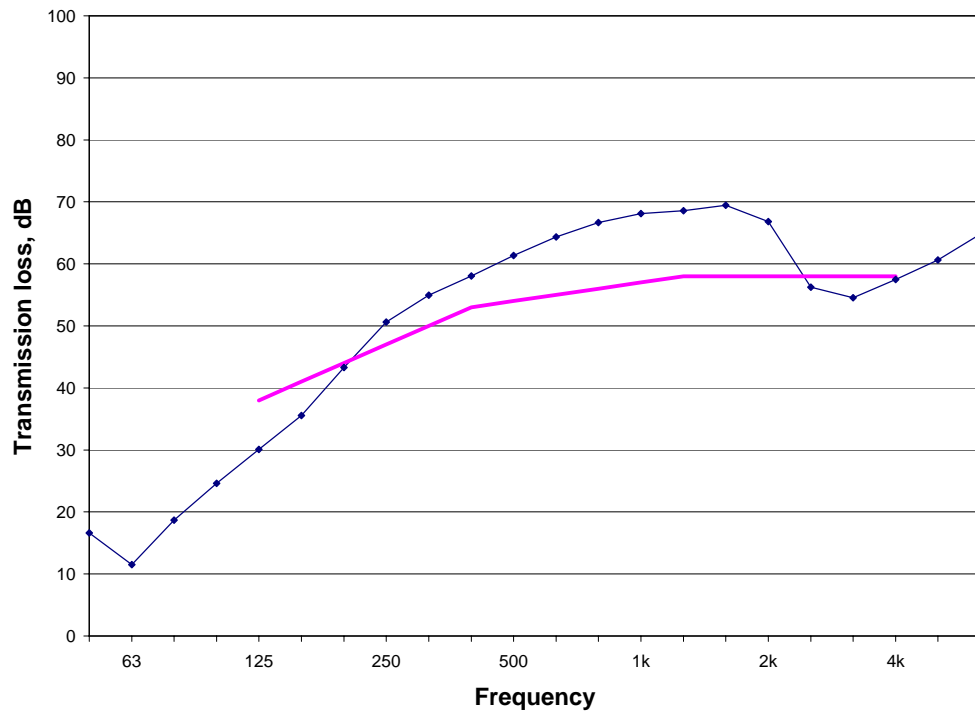
Element	Description:
1	single layer of 13 mm type X gypsum board
2	single layer of 13 mm type X gypsum board
3	90 mm steel studs at 406 mm on centre
4	90 mm of glass fibre insulation in cavity
5	resilient channels at 610 mm on centre
6	single layer of 13 mm type X gypsum board



TestID	TL-94-019
STC	54
50 Hz	16.6
63 Hz	11.5
80 Hz	18.7
100 Hz	24.6
125 Hz	30.1
160 Hz	35.6
200 Hz	43.3
250 Hz	50.6
315 Hz	55.0
400 Hz	58.0
500 Hz	61.4
630 Hz	64.4
800 Hz	66.7
1000 Hz	68.1
1250 Hz	68.6
1600 Hz	69.5
2000 Hz	66.8
2500 Hz	56.2
3150 Hz	54.5
4000 Hz	57.5
5000 Hz	60.6
6300 Hz	64.8

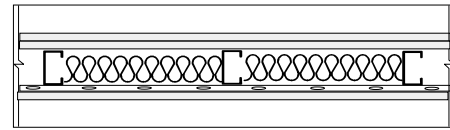
TL-94-019	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	gypsum board	stud	insulation	resilient	gypsum board
material	AX	AX	steel	G1	G.P.	AX
thickness mm	13	13	90	90	13	13
gauge			20			
spacing mm			406		610	
surface density kg/m <sup>2</sup>	10.1	10.0		1.2		10.1
linear density kg/m			1.3			
total weight kg	75.0	74.6	36.4	8.6	4.0	75.2
fastener spacing - edge mm	305	305				305
fastener spacing - field mm	305	610				305
fastener top track pattern	a	a				
fastener base track pattern	a	a				
stud attached to top track			yes			
double header						
orientation	vertical	vertical			horizontal	horizontal

TL-94-019  
STC 54



2G13\_SS90(406)\_MFB90\_RC13(610)\_G13

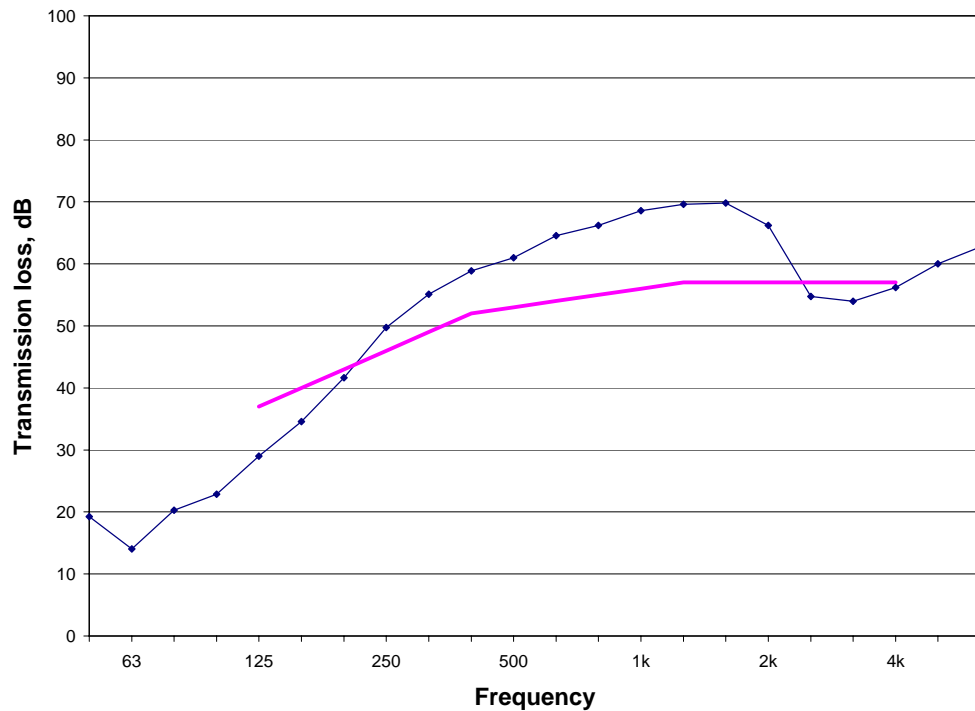
Element	Description:
1	single layer of 13 mm type X gypsum board
2	single layer of 13 mm type X gypsum board
3	90 mm steel studs at 406 mm on centre
4	90 mm of mineral fibre insulation in cavity
5	resilient channels at 610 mm on centre
6	single layer of 13 mm type X gypsum board



TestID	TL-94-013
STC	53
50 Hz	19.2
63 Hz	14.0
80 Hz	20.3
100 Hz	22.9
125 Hz	29.0
160 Hz	34.6
200 Hz	41.6
250 Hz	49.7
315 Hz	55.1
400 Hz	58.9
500 Hz	61.0
630 Hz	64.5
800 Hz	66.2
1000 Hz	68.6
1250 Hz	69.6
1600 Hz	69.8
2000 Hz	66.2
2500 Hz	54.8
3150 Hz	54.0
4000 Hz	56.2
5000 Hz	60.0
6300 Hz	62.7

TL-94-013	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	gypsum board	stud	insulation	resilient	gypsum board
material	AX	AX	steel	M1	G.P.	AX
thickness mm	13	13	90	90	13	13
gauge			16			
spacing mm			406		610	
surface density kg/m <sup>2</sup>	10.0	10.1		2.9		10.0
linear density kg/m			2.4			
total weight kg	74.4	75.4	68.4	21.7	3.5	74.5
fastener spacing - edge mm	305	305				305
fastener spacing - field mm	305	610				305
fastener top track pattern	a	a				
fastener base track pattern	a	a				
stud attached to top track						
double header						
orientation	vertical	vertical			horizontal	horizontal

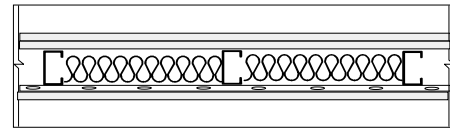
TL-94-013  
STC 53





2G13\_SS90(406)\_MFB90\_RC13(610)\_G13

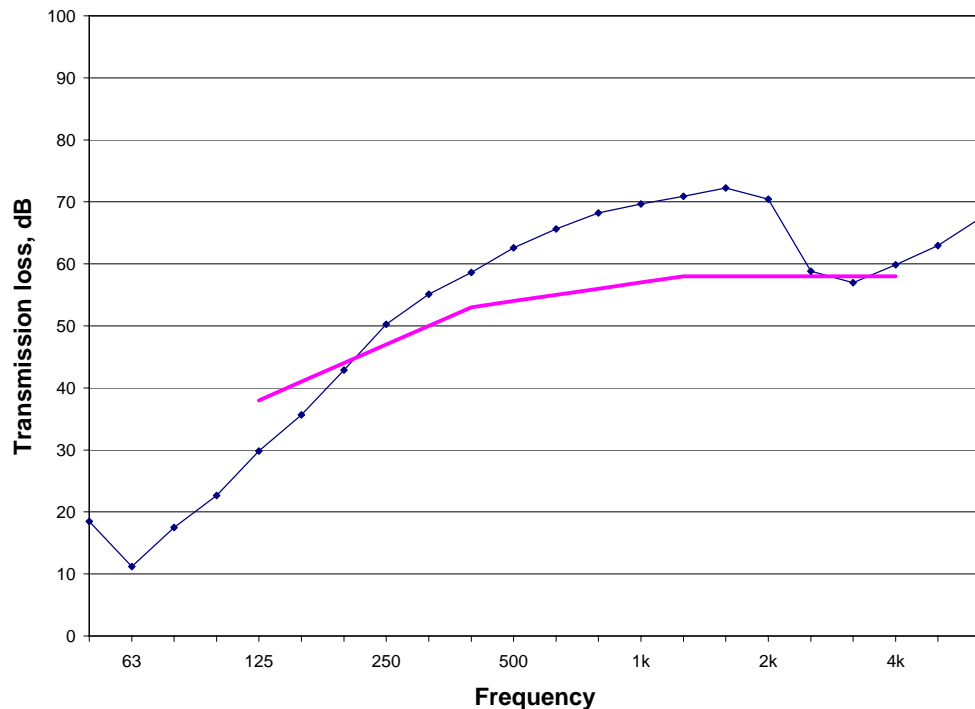
Element	Description:
1	single layer of 13 mm type X gypsum board
2	single layer of 13 mm type X gypsum board
3	90 mm steel studs at 406 mm on centre
4	90 mm of mineral fibre insulation in cavity
5	resilient channels at 610 mm on centre
6	single layer of 13 mm type X gypsum board



TestID	TL-94-023
STC	54
50 Hz	18.5
63 Hz	11.2
80 Hz	17.5
100 Hz	22.6
125 Hz	29.8
160 Hz	35.7
200 Hz	42.9
250 Hz	50.3
315 Hz	55.1
400 Hz	58.6
500 Hz	62.6
630 Hz	65.6
800 Hz	68.2
1000 Hz	69.7
1250 Hz	70.9
1600 Hz	72.3
2000 Hz	70.4
2500 Hz	58.8
3150 Hz	57.0
4000 Hz	59.9
5000 Hz	62.9
6300 Hz	67.4

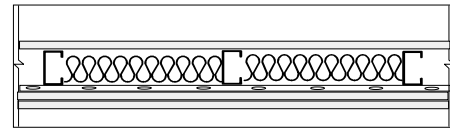
TL-94-023	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	gypsum board	stud	insulation	resilient	gypsum board
material	AX	AX	steel	M1	G.P.	AX
thickness mm	13	13	90	90	13	13
gauge			20			
spacing mm			406		610	
surface density kg/m <sup>2</sup>	10.1	10.0		2.9		10.1
linear density kg/m			1.3			
total weight kg	75.0	74.6	36.4	21.7	4.0	75.2
fastener spacing - edge mm	305	305				305
fastener spacing - field mm	305	610				305
fastener top track pattern	a	a				
fastener base track pattern	a	a				
stud attached to top track			yes			
double header						
orientation	vertical	vertical			horizontal	horizontal

TL-94-023  
STC 54



G13\_SS90(406)\_GFB90\_RC13(610)\_2G13

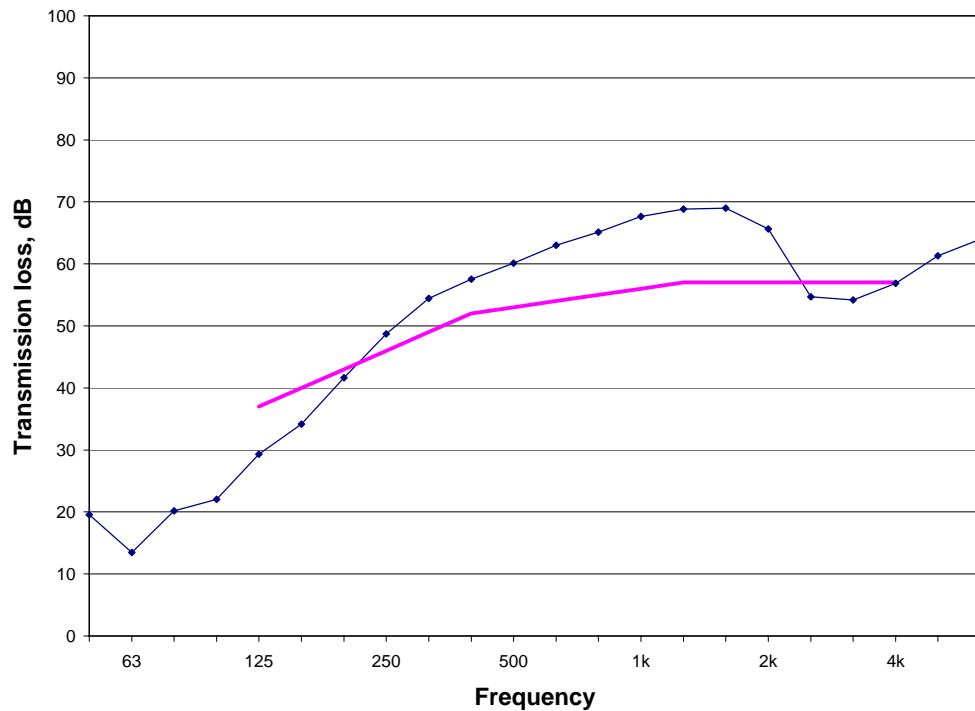
Element	Description:
1	single layer of 13 mm type X gypsum board
2	90 mm steel studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	resilient channels at 610 mm on centre
5	single layer of 13 mm type X gypsum board
6	single layer of 13 mm type X gypsum board



TestID	TL-94-018
STC	53
50 Hz	19.6
63 Hz	13.5
80 Hz	20.2
100 Hz	22.0
125 Hz	29.3
160 Hz	34.2
200 Hz	41.7
250 Hz	48.7
315 Hz	54.5
400 Hz	57.5
500 Hz	60.1
630 Hz	63.0
800 Hz	65.1
1000 Hz	67.7
1250 Hz	68.8
1600 Hz	69.0
2000 Hz	65.6
2500 Hz	54.7
3150 Hz	54.2
4000 Hz	56.9
5000 Hz	61.3
6300 Hz	64.0

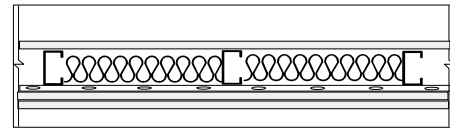
TL-94-018	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	stud	insulation	resilient	gypsum board	gypsum board
material	AX	steel	G1	G.P.	AX	AX
thickness mm	13	90	90	13	13	13
gauge		16				
spacing mm		406		610		
surface density kg/m <sup>2</sup>	10.1		1.2		10.0	10.0
linear density kg/m		2.4				
total weight kg	75.4	68.4	8.6	3.5	74.5	74.6
fastener spacing - edge mm	305				305	305
fastener spacing - field mm	305				610	305
fastener top track pattern	a					
fastener base track pattern	a					
stud attached to top track		yes				
double header						
orientation	vertical			horizontal	horizontal	vertical

TL-94-018  
STC 53



G13\_SS90(406)\_GFB90\_RC13(610)\_2G13

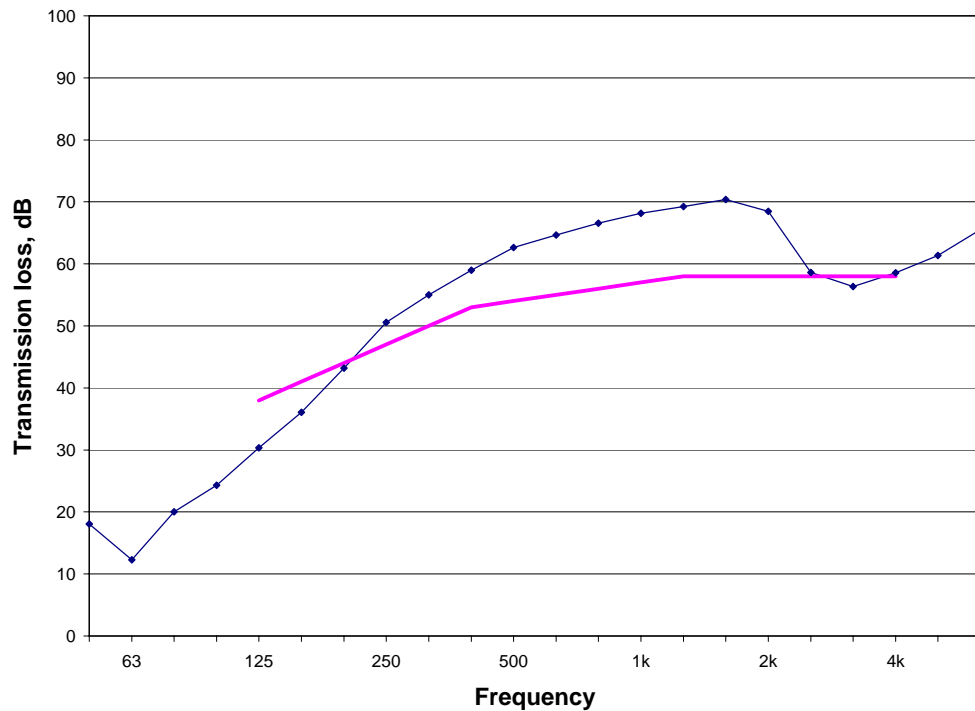
Element	Description:
1	single layer of 13 mm type X gypsum board
2	90 mm steel studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	resilient channels at 610 mm on centre
5	single layer of 13 mm type X gypsum board
6	single layer of 13 mm type X gypsum board



TestID	TL-94-021
STC	54
50 Hz	18.0
63 Hz	12.3
80 Hz	20.0
100 Hz	24.3
125 Hz	30.4
160 Hz	36.0
200 Hz	43.2
250 Hz	50.5
315 Hz	55.0
400 Hz	59.0
500 Hz	62.6
630 Hz	64.6
800 Hz	66.6
1000 Hz	68.1
1250 Hz	69.2
1600 Hz	70.4
2000 Hz	68.5
2500 Hz	58.6
3150 Hz	56.4
4000 Hz	58.5
5000 Hz	61.4
6300 Hz	65.5

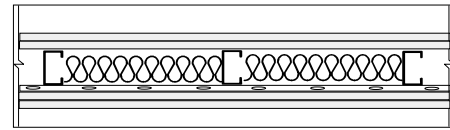
TL-94-021	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	stud	insulation	resilient	gypsum board	gypsum board
material	AX	steel	G1	G.P.	AX	AX
thickness mm	13	90	90	13	13	13
gauge		20				
spacing mm		406		610		
surface density kg/m <sup>2</sup>	10.0		1.2		10.1	10.0
linear density kg/m		1.3				
total weight kg	74.6	36.4	8.6	4.0	75.2	74.3
fastener spacing - edge mm	305				305	305
fastener spacing - field mm	305				610	305
fastener top track pattern	a					
fastener base track pattern	a					
stud attached to top track		yes				
double header						
orientation	vertical			horizontal	horizontal	vertical

TL-94-021  
STC 54



2G13\_SS90(406)\_GFB90\_RC13(610)\_2G13

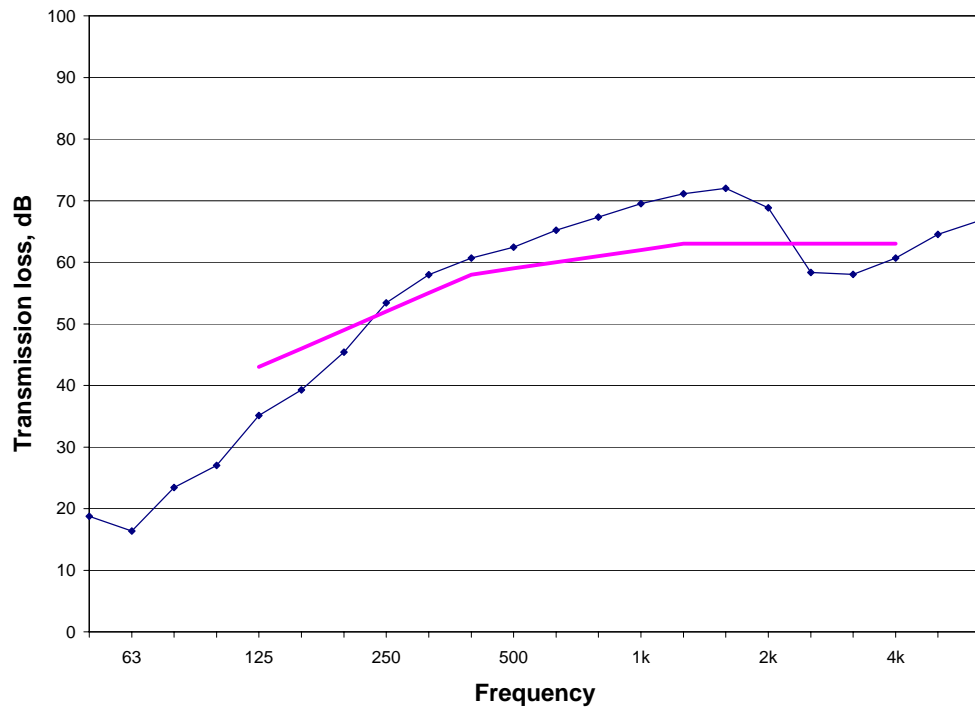
Element	Description:
1	single layer of 13 mm type X gypsum board
2	single layer of 13 mm type X gypsum board
3	90 mm steel studs at 406 mm on centre
4	90 mm of glass fibre insulation in cavity
5	resilient channels at 610 mm on centre
6	single layer of 13 mm type X gypsum board
7	single layer of 13 mm type X gypsum board



TestID	TL-94-017
STC	59
50 Hz	18.8
63 Hz	16.4
80 Hz	23.5
100 Hz	27.0
125 Hz	35.1
160 Hz	39.3
200 Hz	45.4
250 Hz	53.4
315 Hz	58.0
400 Hz	60.7
500 Hz	62.4
630 Hz	65.2
800 Hz	67.3
1000 Hz	69.5
1250 Hz	71.1
1600 Hz	72.0
2000 Hz	68.8
2500 Hz	58.4
3150 Hz	58.0
4000 Hz	60.7
5000 Hz	64.5
6300 Hz	66.8

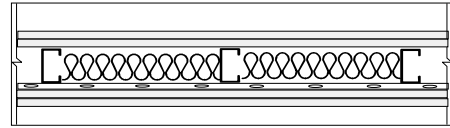
TL-94-017	element 1	element 2	element 3	element 4	element 5	element 6	element 7
type	gypsum board	gypsum board	stud	insulation	resilient	gypsum board	gypsum board
material	AX	AX	steel	G1	G.P.	AX	AX
thickness mm	13	13	90	90	13	13	13
gauge			16				
spacing mm			406		610		
surface density kg/m <sup>2</sup>	10.0	10.1		1.2		10.0	10.0
linear density kg/m			2.4				
total weight kg	74.4	75.4	68.4	8.6	3.5	74.5	74.6
fastener spacing - edge mm	305	305				305	305
fastener spacing - field mm	305	610				610	305
fastener top track pattern	a	a					
fastener base track pattern	a	a					
stud attached to top track			yes				
double header							
orientation	vertical	vertical			horizontal	horizontal	vertical

TL-94-017  
STC 59



2G13\_SS90(406)\_GFB90\_RC13(610)\_2G13

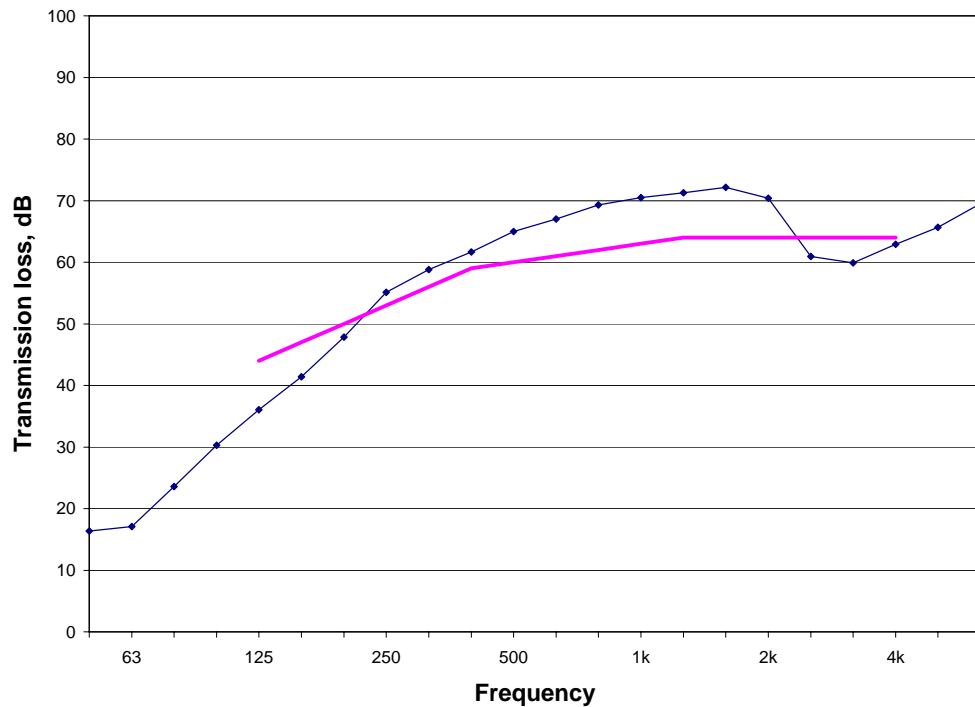
Element	Description:
1	single layer of 13 mm type X gypsum board
2	single layer of 13 mm type X gypsum board
3	90 mm steel studs at 406 mm on centre
4	90 mm of glass fibre insulation in cavity
5	resilient channels at 610 mm on centre
6	single layer of 13 mm type X gypsum board
7	single layer of 13 mm type X gypsum board



TestID	TL-94-020
STC	60
50 Hz	16.4
63 Hz	17.1
80 Hz	23.6
100 Hz	30.3
125 Hz	36.0
160 Hz	41.4
200 Hz	47.8
250 Hz	55.1
315 Hz	58.8
400 Hz	61.7
500 Hz	65.0
630 Hz	67.0
800 Hz	69.3
1000 Hz	70.5
1250 Hz	71.3
1600 Hz	72.2
2000 Hz	70.4
2500 Hz	60.9
3150 Hz	59.9
4000 Hz	62.9
5000 Hz	65.7
6300 Hz	69.5

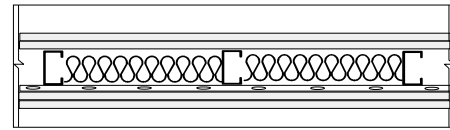
TL-94-020	element 1	element 2	element 3	element 4	element 5	element 6	element 7
type	gypsum board	gypsum board	stud	insulation	resilient	gypsum board	gypsum board
material	AX	AX	steel	G1	G.P.	AX	AX
thickness mm	13	13	90	90	13	13	13
gauge			20				
spacing mm			406		610		
surface density kg/m <sup>2</sup>	10.1	10.0		1.2		10.1	10.0
linear density kg/m			1.3				
total weight kg	75.0	74.6	36.4	8.6	4.0	75.2	74.3
fastener spacing - edge mm	305	305				305	305
fastener spacing - field mm	305	610				610	305
fastener top track pattern	a	a					
fastener base track pattern	a	a					
stud attached to top track			yes				
double header							
orientation	vertical	vertical			horizontal	horizontal	vertical

TL-94-020  
STC 60



2G13\_SS90(406)\_MFB90\_RC13(610)\_2G13

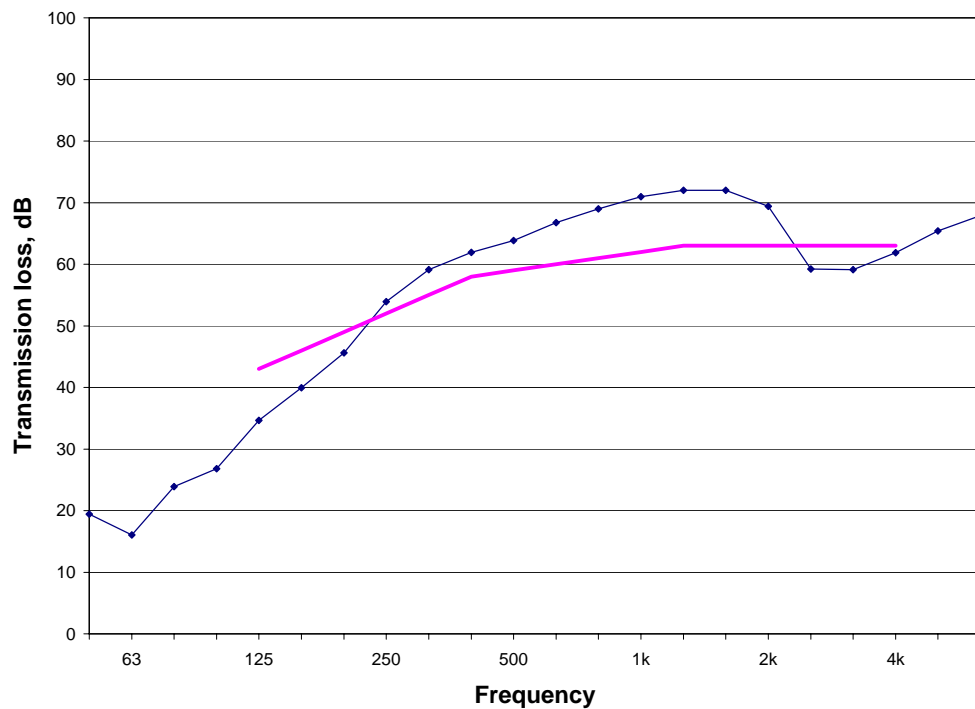
Element	Description:
1	single layer of 13 mm type X gypsum board
2	single layer of 13 mm type X gypsum board
3	90 mm steel studs at 406 mm on centre
4	90 mm of mineral fibre insulation in cavity
5	resilient channels at 610 mm on centre
6	single layer of 13 mm type X gypsum board
7	single layer of 13 mm type X gypsum board



TestID	TL-94-014
STC	59
50 Hz	19.4
63 Hz	16.1
80 Hz	23.9
100 Hz	26.8
125 Hz	34.7
160 Hz	39.9
200 Hz	45.6
250 Hz	53.9
315 Hz	59.1
400 Hz	61.9
500 Hz	63.8
630 Hz	66.7
800 Hz	69.0
1000 Hz	70.9
1250 Hz	72.0
1600 Hz	72.0
2000 Hz	69.4
2500 Hz	59.2
3150 Hz	59.1
4000 Hz	61.9
5000 Hz	65.4
6300 Hz	67.9

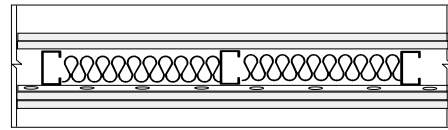
TL-94-014	element 1	element 2	element 3	element 4	element 5	element 6	element 7
type	gypsum board	gypsum board	stud	insulation	resilient	gypsum board	gypsum board
material	AX	AX	steel	M1	G.P.	AX	AX
thickness mm	13	13	90	90	13	13	13
gauge			16				
spacing mm			406		610		
surface density kg/m <sup>2</sup>	10.0	10.1		2.9		10.0	10.0
linear density kg/m			2.4				
total weight kg	74.4	75.4	68.4	21.7	3.5	74.5	74.6
fastener spacing - edge mm	305	305				305	305
fastener spacing - field mm	305	610				610	305
fastener top track pattern	a	a					
fastener base track pattern	a	a					
stud attached to top track							
double header							
orientation	vertical	vertical			horizontal	horizontal	vertical

TL-94-014  
STC 59



2G13\_SS90(406)\_MFB90\_RC13(610)\_2G13

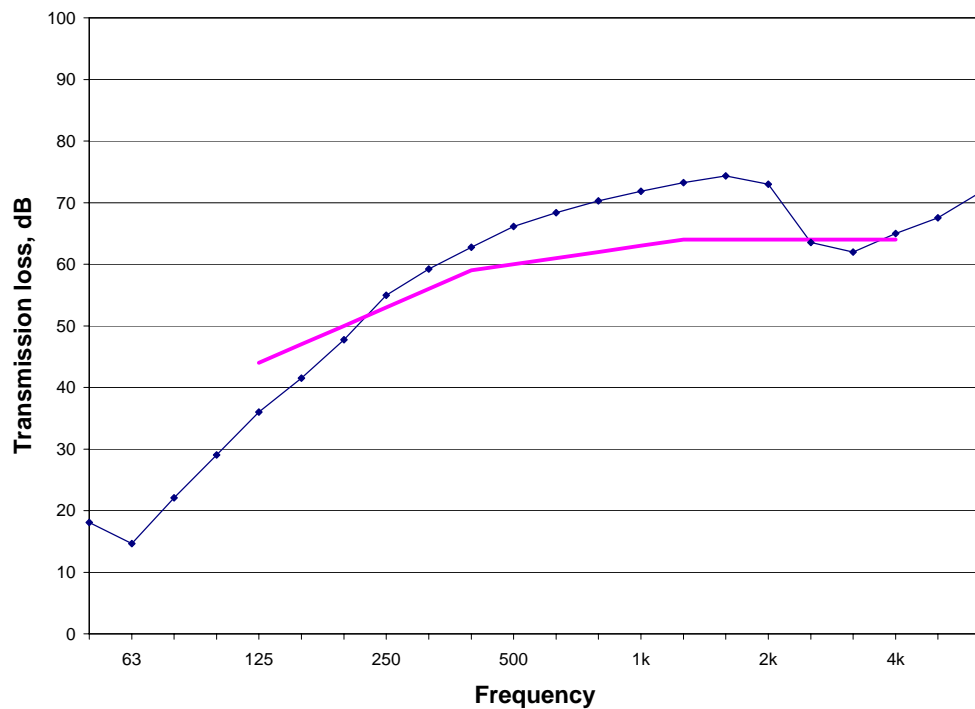
Element	Description:
1	single layer of 13 mm type X gypsum board
2	single layer of 13 mm type X gypsum board
3	90 mm steel studs at 406 mm on centre
4	90 mm of mineral fibre insulation in cavity
5	resilient channels at 610 mm on centre
6	single layer of 13 mm type X gypsum board
7	single layer of 13 mm type X gypsum board



TestID	TL-94-024
STC	60
50 Hz	18.1
63 Hz	14.7
80 Hz	22.1
100 Hz	29.0
125 Hz	36.0
160 Hz	41.5
200 Hz	47.7
250 Hz	55.0
315 Hz	59.2
400 Hz	62.8
500 Hz	66.1
630 Hz	68.4
800 Hz	70.3
1000 Hz	71.9
1250 Hz	73.2
1600 Hz	74.4
2000 Hz	73.0
2500 Hz	63.5
3150 Hz	62.0
4000 Hz	65.0
5000 Hz	67.5
6300 Hz	71.7

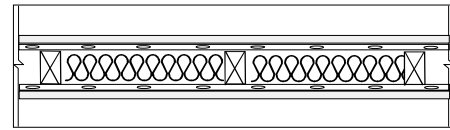
TL-94-024	element 1	element 2	element 3	element 4	element 5	element 6	element 7
type	gypsum board	gypsum board	stud	insulation	resilient	gypsum board	gypsum board
material	AX	AX	steel	M1	G.P.	AX	AX
thickness mm	13	13	90	90	13	13	13
gauge			20				
spacing mm			406		610		
surface density kg/m <sup>2</sup>	10.1	10.0		2.9		10.1	10.0
linear density kg/m			1.3				
total weight kg	75.0	74.6	36.4	21.7	4.0	75.2	74.3
fastener spacing - edge mm	305	305				305	305
fastener spacing - field mm	305	610				610	305
fastener top track pattern	a	a					
fastener base track pattern	a	a					
stud attached to top track			yes				
double header							
orientation	vertical	vertical			horizontal	horizontal	vertical

TL-94-024  
STC 60



G16\_RC13(610)\_WS90(406)\_GFB90\_RC13(610)\_G16

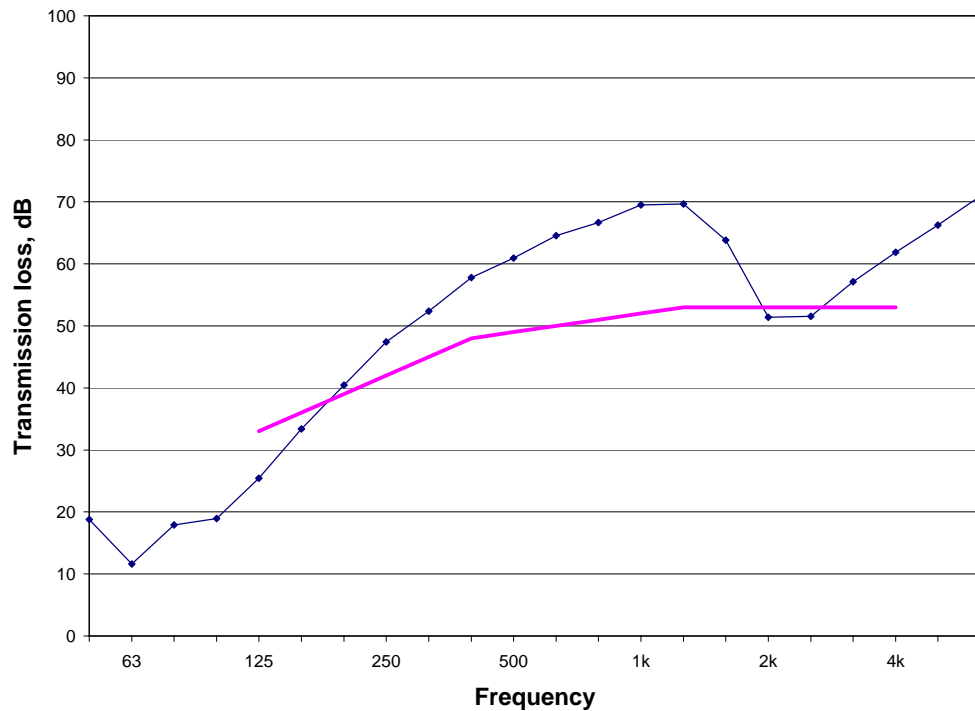
Element	Description:
1	single layer of 16 mm type X gypsum board
2	resilient channels at 610 mm on centre
3	90 mm wood studs at 406 mm on centre
4	90 mm of glass fibre insulation in cavity
5	resilient channels at 610 mm on centre
6	single layer of 16 mm type X gypsum board



TestID	TL-93-159
STC	49
50 Hz	18.8
63 Hz	11.6
80 Hz	17.9
100 Hz	18.9
125 Hz	25.4
160 Hz	33.4
200 Hz	40.4
250 Hz	47.4
315 Hz	52.4
400 Hz	57.8
500 Hz	60.9
630 Hz	64.6
800 Hz	66.7
1000 Hz	69.5
1250 Hz	69.6
1600 Hz	63.8
2000 Hz	51.4
2500 Hz	51.5
3150 Hz	57.1
4000 Hz	61.9
5000 Hz	66.3
6300 Hz	70.9

TL-93-159	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	resilient	stud	insulation	resilient	gypsum board
material	CX	G.P	wood	G1	G.P	CX
thickness mm	16	13	90	90	13	16
gauge						
spacing mm		610	406		610	
surface density kg/m <sup>2</sup>	11.2			1.0		11.1
linear density kg/m			1.6			
total weight kg	82.9	3.8	46.8	7.7	3.8	82.5
fastener spacing - edge mm	305					305
fastener spacing - field mm	305					305
fastener top track pattern						
fastener base track pattern						
stud attached to top track			yes			
double header			yes			
orientation	horizontal	horizontal			horizontal	horizontal

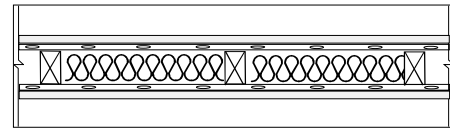
TL-93-159  
STC 49





G16\_RC13(610)\_WS90(610)\_GFB90\_RC13(610)\_G16

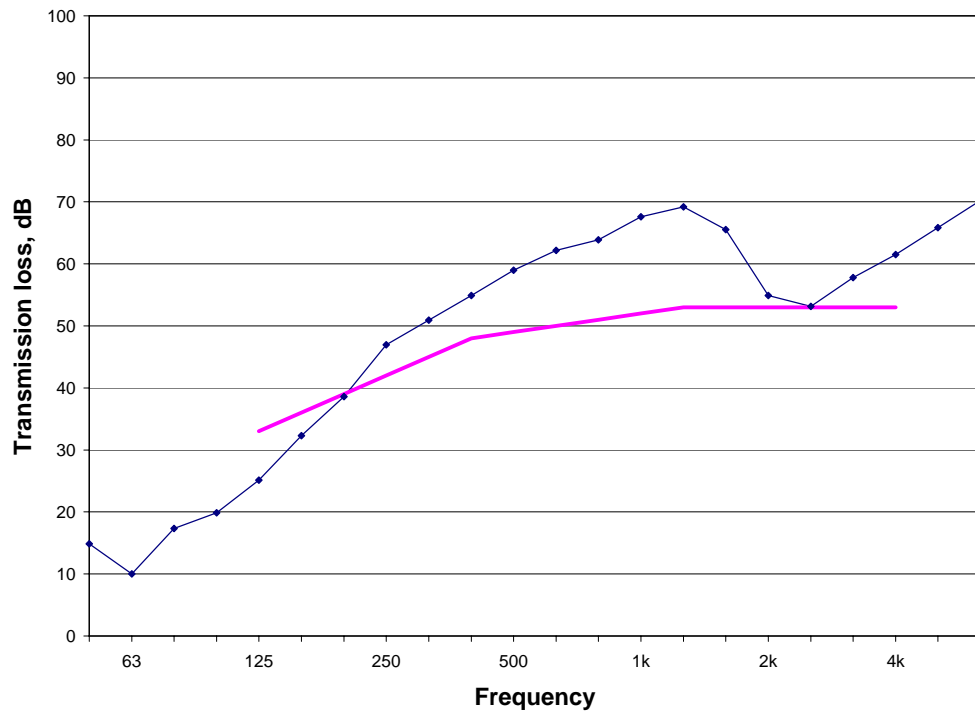
Element	Description:
1	single layer of 16 mm type X gypsum board
2	resilient channels at 610 mm on centre
3	90 mm wood studs at 610 mm on centre
4	90 mm of glass fibre insulation in cavity
5	resilient channels at 610 mm on centre
6	single layer of 16 mm type X gypsum board



TestID	TL-93-104
STC	49
50 Hz	14.9
63 Hz	10.0
80 Hz	17.4
100 Hz	19.8
125 Hz	25.2
160 Hz	32.3
200 Hz	38.6
250 Hz	47.0
315 Hz	50.9
400 Hz	54.9
500 Hz	59.0
630 Hz	62.2
800 Hz	63.9
1000 Hz	67.6
1250 Hz	69.2
1600 Hz	65.5
2000 Hz	54.9
2500 Hz	53.1
3150 Hz	57.8
4000 Hz	61.5
5000 Hz	65.9
6300 Hz	70.2

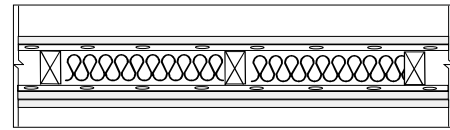
TL-93-104	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	resilient	stud	insulation	resilient	gypsum board
material	CX	G.P.	wood	G1	G.P.	CX
thickness mm	16	13	90	90	13	16
gauge						
spacing mm		610	610		610	
surface density kg/m <sup>2</sup>	10.9			1.1		11.0
linear density kg/m			1.3			
total weight kg	80.7	3.5	29.1	8.0	3.7	82.0
fastener spacing - edge mm	305					305
fastener spacing - field mm	305					305
fastener top track pattern	c					
fastener base track pattern	c					
stud attached to top track			yes			
double header						
orientation	vertical	vertical			vertical	vertical

TL-93-104  
STC 49



G16\_RC13(610)\_WS90(406)\_GFB90\_RC13(610)\_2G16

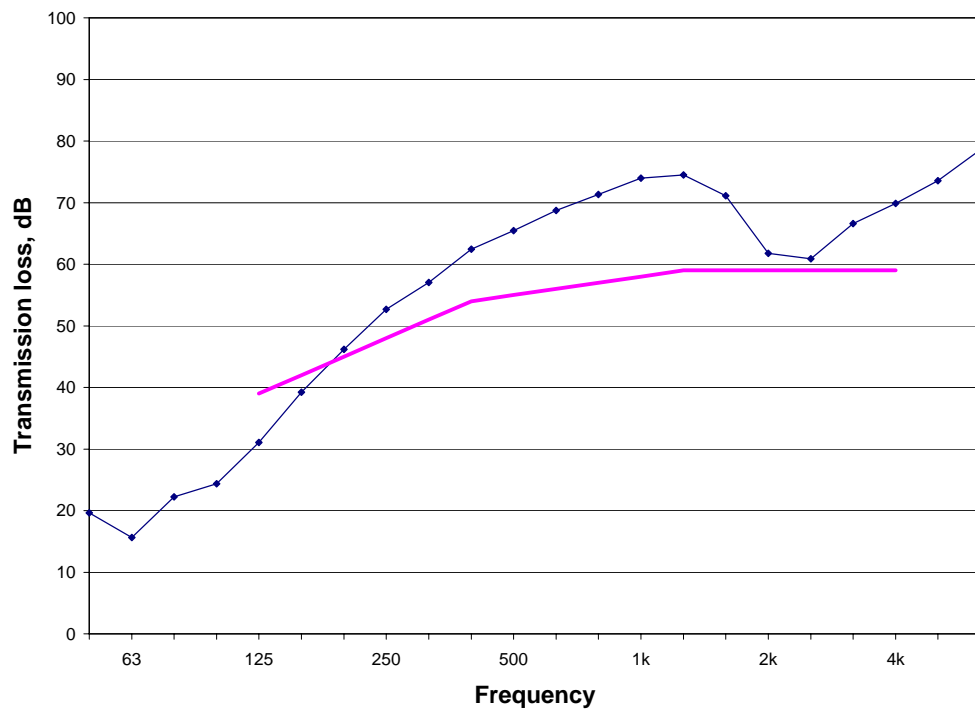
Element	Description:
1	single layer of 16 mm type X gypsum board
2	resilient channels at 610 mm on centre
3	90 mm wood studs at 406 mm on centre
4	90 mm of glass fibre insulation in cavity
5	resilient channels at 610 mm on centre
6	single layer of 16 mm type X gypsum board
7	single layer of 16 mm type X gypsum board



TestID	TL-93-160
STC	55
50 Hz	19.6
63 Hz	15.7
80 Hz	22.3
100 Hz	24.4
125 Hz	31.1
160 Hz	39.2
200 Hz	46.2
250 Hz	52.7
315 Hz	57.1
400 Hz	62.4
500 Hz	65.4
630 Hz	68.7
800 Hz	71.3
1000 Hz	74.0
1250 Hz	74.5
1600 Hz	71.1
2000 Hz	61.8
2500 Hz	60.9
3150 Hz	66.6
4000 Hz	69.9
5000 Hz	73.5
6300 Hz	78.6

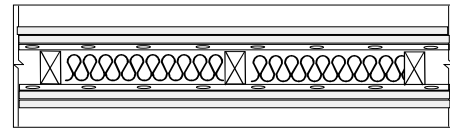
TL-93-160	element 1	element 2	element 3	element 4	element 5	element 6	element 7
type	gypsum board	resilient	stud	insulation	resilient	gypsum board	gypsum board
material	CX	G.P	wood	G1	G.P	CX	CX
thickness mm	16	13	90	90	13	16	16
gauge							
spacing mm		610	406		610		
surface density kg/m <sup>2</sup>	11.2			1.0		11.1	11.1
linear density kg/m			1.6				
total weight kg	82.9	3.8	46.8	7.7	3.8	82.5	82.6
fastener spacing - edge mm	305					305	305
fastener spacing - field mm	305					610	305
fastener top track pattern							
fastener base track pattern							
stud attached to top track			yes				
double header			yes				
orientation	horizontal	horizontal			horizontal	horizontal	vertical

TL-93-160  
STC 55



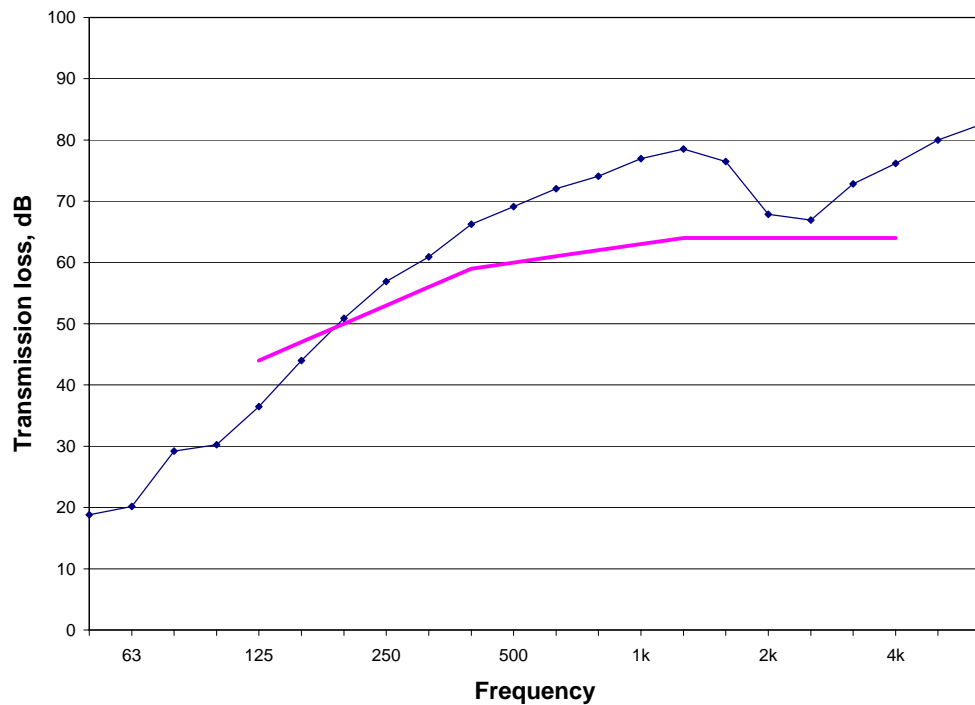
2G16\_RC13(610)\_WS90(406)\_GFB90\_RC13(610)\_2G16

Element	Description:
1	single layer of 16 mm type X gypsum board
2	single layer of 16 mm type X gypsum board
3	resilient channels at 610 mm on centre
4	90 mm wood studs at 406 mm on centre
5	90 mm of glass fibre insulation in cavity
6	resilient channels at 610 mm on centre
7	single layer of 16 mm type X gypsum board
8	single layer of 16 mm type X gypsum board



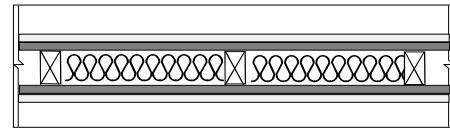
TestID	TL-93-161		element 1	element 2	element 3	element 4	element 5	element 6	element 7	element 8
STC	60									
50 Hz	18.8	type	gypsum board	gypsum board	resilient	stud	insulation	resilient	gypsum board	gypsum board
63 Hz	20.2	material	CX	CX	G.P.	wood	G1	G.P.	CX	CX
80 Hz	29.2	thickness mm	16	16	13	90	90	13	16	16
100 Hz	30.3	gauge								
125 Hz	36.5	spacing mm			610	406		610		
160 Hz	44.0	surface density kg/m <sup>2</sup>	11.1	11.2			1.0		11.1	11.1
200 Hz	50.9	linear density kg/m				1.6				
250 Hz	56.9	total weight kg	82.8	82.9	3.8	46.8	7.7	3.8	82.5	82.6
315 Hz	60.9	fastener spacing - edge mm	305	305					305	305
400 Hz	66.2	fastener spacing - field mm	305	610					610	305
500 Hz	69.1	fastener top track pattern								
630 Hz	72.1	fastener base track pattern								
800 Hz	74.1	stud attached to top track				yes				
1000 Hz	77.0	double header				yes				
1250 Hz	78.6	orientation	vertical	horizontal	horizontal			horizontal	horizontal	vertical
1600 Hz	76.5									
2000 Hz	67.9									
2500 Hz	66.9									
3150 Hz	72.8									
4000 Hz	76.2									
5000 Hz	80.0									
6300 Hz	82.5									

TL-93-161  
STC 60



G16\_WFB19\_WS90(610)\_GFB90\_WFB19\_G16

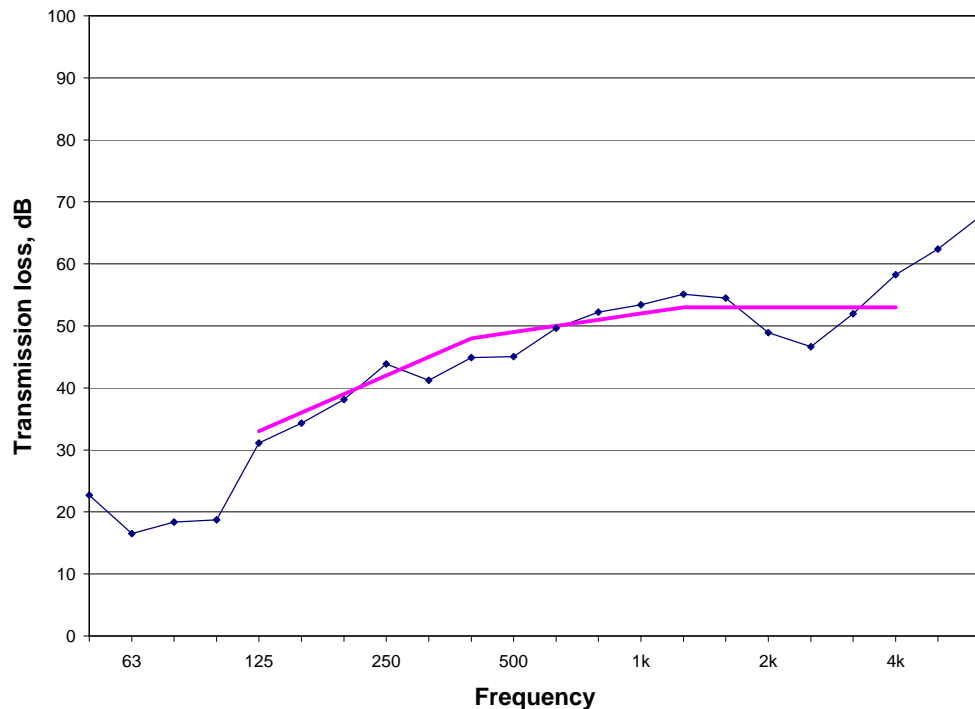
Element	Description:
1	single layer of 16 mm type X gypsum board
2	single layer of 17 mm fibre board
3	90 mm wood studs at 610 mm on centre
4	90 mm of glass fibre insulation in cavity
5	single layer of 17 mm fibre board
6	single layer of 16 mm type X gypsum board



TestID	TL-93-190
STC	49
50 Hz	22.7
63 Hz	16.5
80 Hz	18.4
100 Hz	18.7
125 Hz	31.1
160 Hz	34.3
200 Hz	38.2
250 Hz	43.9
315 Hz	41.2
400 Hz	44.9
500 Hz	45.1
630 Hz	49.6
800 Hz	52.2
1000 Hz	53.4
1250 Hz	55.1
1600 Hz	54.5
2000 Hz	48.9
2500 Hz	46.6
3150 Hz	52.0
4000 Hz	58.3
5000 Hz	62.4
6300 Hz	67.7

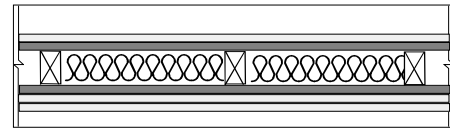
TL-93-190	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	fibre board	stud	insulation	fibre board	gypsum board
material	CX	FB	wood	G1	FB	CX
thickness mm	16	17	90	90	17	16
gauge						
spacing mm			610			
surface density kg/m <sup>2</sup>	11.1	5.5		1.0	5.5	11.1
linear density kg/m			1.6			
total weight kg	82.8	41.0	35.3	7.5	41.0	82.5
fastener spacing - edge mm	305	*			*	305
fastener spacing - field mm	305	*			*	305
fastener top track pattern	c					c
fastener base track pattern	c					c
stud attached to top track			yes			
double header			yes			
orientation	vertical	vertical			vertical	vertical

TL-93-190  
STC 49



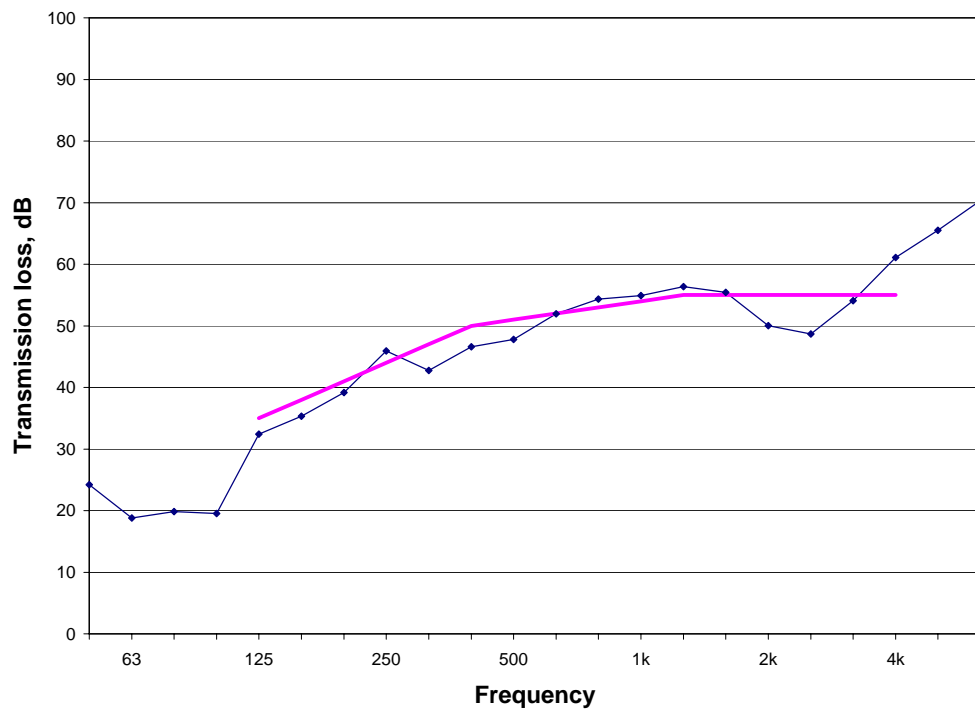
G16\_WFB19\_WS90(610)\_GFB90\_WFB19\_2G16

Element	Description:
1	single layer of 16 mm type X gypsum board
2	single layer of 17 mm fibre board
3	90 mm wood studs at 610 mm on centre
4	90 mm of glass fibre insulation in cavity
5	single layer of 17 mm fibre board
6	single layer of 16 mm type X gypsum board
7	single layer of 16 mm type X gypsum board



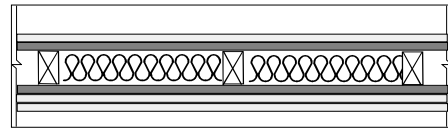
TestID	TL-93-191		element 1	element 2	element 3	element 4	element 5	element 6	element 7
STC	51								
50 Hz	24.2	type	gypsum board	fibre board	stud	insulation	fibre board	gypsum board	gypsum board
63 Hz	18.8	material	CX	FB	wood	G1	FB	CX	CX
80 Hz	19.9	thickness mm	16	17	90	90	17	16	16
100 Hz	19.5	gauge							
125 Hz	32.4	spacing mm			610				
160 Hz	35.3	surface density kg/m <sup>2</sup>	11.1	5.5		1.0	5.5	11.1	11.1
200 Hz	39.2	linear density kg/m			1.6				
250 Hz	45.9	total weight kg	82.8	41.0	35.3	7.5	41.0	82.5	82.6
315 Hz	42.7	fastener spacing - edge mm	305	*			*	610	305
400 Hz	46.6	fastener spacing - field mm	305	*			*	610	305
500 Hz	47.8	fastener top track pattern	c					c	c
630 Hz	52.0	fastener base track pattern	c					c	c
800 Hz	54.3	stud attached to top track			yes				
1000 Hz	54.9	double header			yes				
1250 Hz	56.4	orientation	vertical	vertical			vertical	vertical	vertical
1600 Hz	55.5								
2000 Hz	50.0								
2500 Hz	48.7								
3150 Hz	54.1								
4000 Hz	61.1								
5000 Hz	65.5								
6300 Hz	70.3								

TL-93-191  
STC 51



G16\_WFB19\_WS90(610)\_GFB90\_WFB19\_2G16

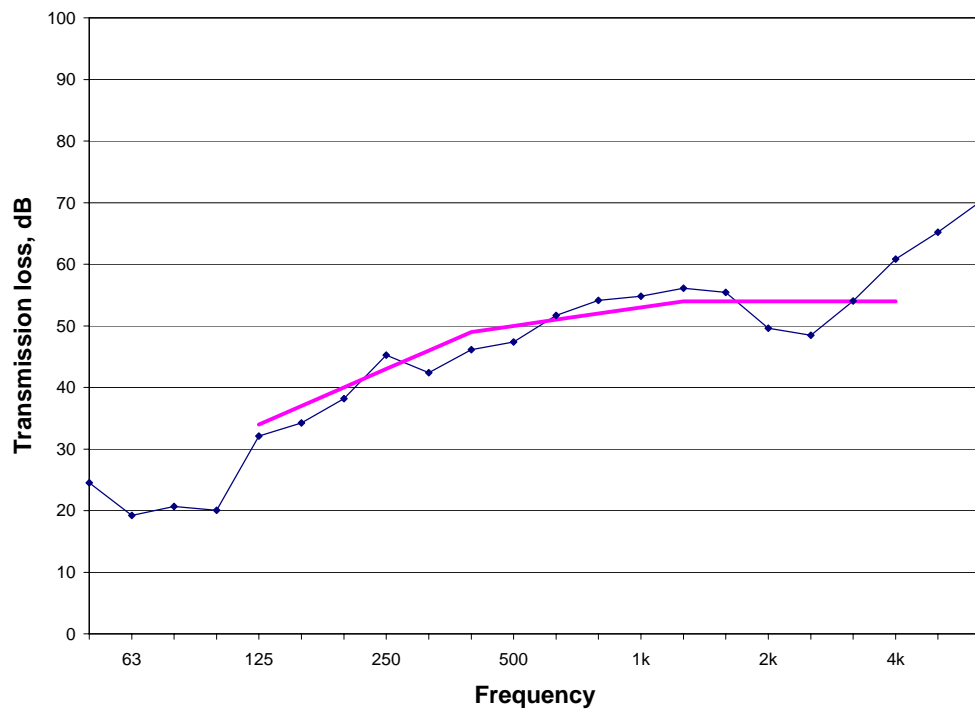
Element	Description:
1	single layer of 16 mm type X gypsum board
2	single layer of 17 mm fibre board
3	90 mm wood studs at 610 mm on centre
4	90 mm of glass fibre insulation in cavity
5	single layer of 17 mm fibre board
6	single layer of 16 mm type X gypsum board
7	single layer of 16 mm type X gypsum board



TestID	TL-93-192
STC	50
50 Hz	24.5
63 Hz	19.2
80 Hz	20.7
100 Hz	20.1
125 Hz	32.1
160 Hz	34.2
200 Hz	38.2
250 Hz	45.2
315 Hz	42.4
400 Hz	46.1
500 Hz	47.4
630 Hz	51.7
800 Hz	54.2
1000 Hz	54.8
1250 Hz	56.1
1600 Hz	55.4
2000 Hz	49.6
2500 Hz	48.4
3150 Hz	54.0
4000 Hz	60.8
5000 Hz	65.2
6300 Hz	70.2

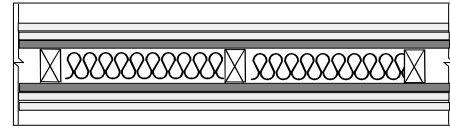
TL-93-192	element 1	element 2	element 3	element 4	element 5	element 6	element 7
type	gypsum board	fibre board	stud	insulation	fibre board	gypsum board	gypsum board
material	CX	FB	wood	G1	FB	CX	CX
thickness mm	16	17	90	90	17	16	16
gauge							
spacing mm			610				
surface density kg/m <sup>2</sup>	11.1	5.5		1.0	5.5	11.1	11.1
linear density kg/m			1.6				
total weight kg	82.8	41.0	35.3	7.5	41.0	82.5	82.6
fastener spacing - edge mm	305	*			*	610	305
fastener spacing - field mm	305	*			*	610	305
fastener top track pattern	a					c	a
fastener base track pattern	a					c	a
stud attached to top track			yes				
double header			yes				
orientation	vertical	vertical			vertical	vertical	vertical

TL-93-192  
STC 50



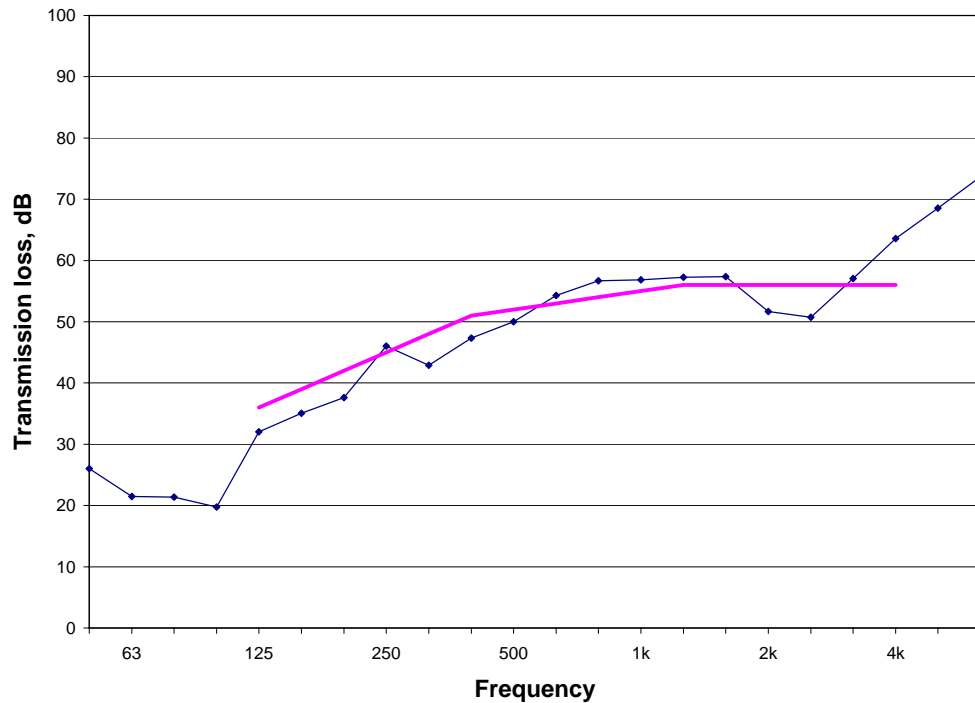
2G16\_WFB19\_WS90(610)\_GFB90\_WFB19\_2G16

Element	Description:
1	single layer of 16 mm type X gypsum board
2	single layer of 16 mm type X gypsum board
3	single layer of 17 mm fibre board
4	90 mm wood studs at 610 mm on centre
5	90 mm of glass fibre insulation in cavity
6	single layer of 17 mm fibre board
7	single layer of 16 mm type X gypsum board
8	single layer of 16 mm type X gypsum board



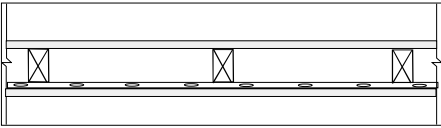
TestID	TL-93-193	TL-93-193	element 1	element 2	element 3	element 4	element 5	element 6	element 7	element 8
STC	52									
50 Hz	26.0	type	gypsum board	gypsum board	fibre board	stud	insulation	fibre board	gypsum board	gypsum board
63 Hz	21.5	material	CX	CX	FB	wood	G1	FB	CX	CX
80 Hz	21.4	thickness mm	16	16	17	90	90	17	16	16
100 Hz	19.7	gauge								
125 Hz	32.0	spacing mm				610				
160 Hz	35.1	surface density kg/m <sup>2</sup>	11.0	11.1	5.5		1.0	5.5	11.1	11.1
200 Hz	37.6	linear density kg/m				1.6				
250 Hz	46.0	total weight kg	82.1	82.8	41.0	35.3	7.5	41.0	82.5	82.6
315 Hz	42.9	fastener spacing - edge mm	305	610	*			*	610	305
400 Hz	47.3	fastener spacing - field mm	305	610	*			*	610	305
500 Hz	50.0	fastener top track pattern	a	c					c	a
630 Hz	54.3	fastener base track pattern	a	c					c	a
800 Hz	56.7	stud attached to top track				yes				
1000 Hz	56.8	double header				yes				
1250 Hz	57.3	orientation	vertical	vertical	vertical			vertical	vertical	vertical
1600 Hz	57.4									
2000 Hz	51.7									
2500 Hz	50.7									
3150 Hz	57.1									
4000 Hz	63.6									
5000 Hz	68.6									
6300 Hz	73.7									

TL-93-193  
STC 52



Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	resilient channels at 610 mm on centre
4	single layer of 16 mm type X gypsum board

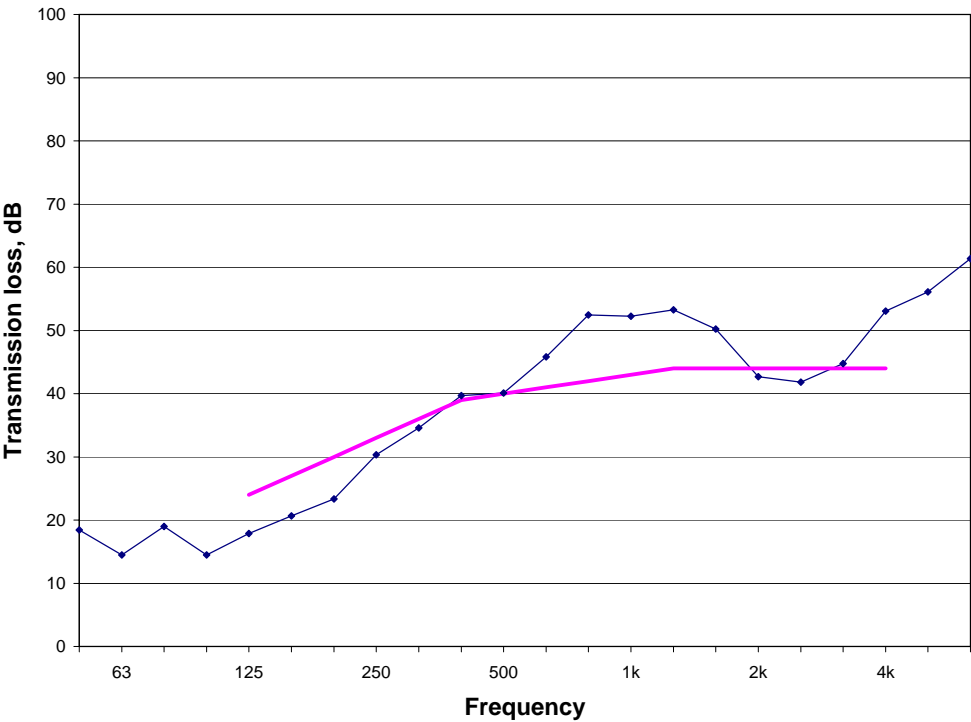
G16\_WS90(406)\_RC13(610)\_G16



TestID	TL-93-122
STC	40
50 Hz	18.4
63 Hz	14.5
80 Hz	19.0
100 Hz	14.5
125 Hz	17.8
160 Hz	20.7
200 Hz	23.3
250 Hz	30.3
315 Hz	34.6
400 Hz	39.7
500 Hz	40.1
630 Hz	45.8
800 Hz	52.4
1000 Hz	52.2
1250 Hz	53.2
1600 Hz	50.2
2000 Hz	42.7
2500 Hz	41.8
3150 Hz	44.8
4000 Hz	53.0
5000 Hz	56.1
6300 Hz	61.4

TL-93-122	element 1	element 2	element 3	element 4
type	gypsum board	stud	resilient	gypsum board
material	CX	wood	G.P	CX
thickness mm	16	90	13	16
gauge				
spacing mm		406	610	
surface density kg/m <sup>2</sup>	11.0			11.3
linear density kg/m		1.4		
total weight kg	81.8	40.7	3.6	84.1
fastener spacing - edge mm	406			305
fastener spacing - field mm	406			305
fastener top track pattern	c			
fastener base track pattern	c			
stud attached to top track		yes		
double header		yes		
orientation	vertical		horizontal	horizontal

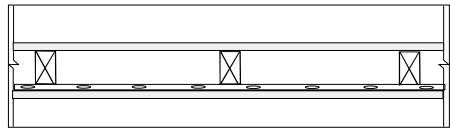
TL-93-122  
STC 40





Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm wood studs at 610 mm on centre
3	resilient channels at 610 mm on centre
4	single layer of 16 mm type X gypsum board

G16\_WS90(610)\_RC13(610)\_G16

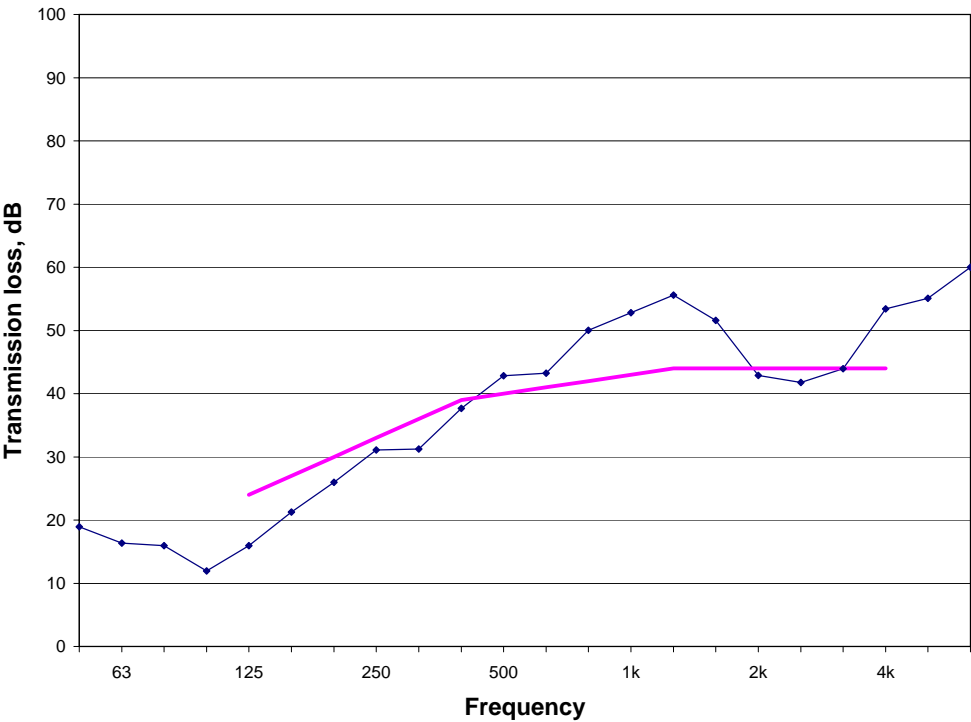


TestID	TL-93-089
STC	40
50 Hz	18.9
63 Hz	16.4
80 Hz	15.9
100 Hz	11.9
125 Hz	16.0
160 Hz	21.3
200 Hz	26.0
250 Hz	31.1
315 Hz	31.3
400 Hz	37.7
500 Hz	42.8
630 Hz	43.2
800 Hz	50.0
1000 Hz	52.8
1250 Hz	55.6
1600 Hz	51.6
2000 Hz	42.9
2500 Hz	41.8
3150 Hz	43.9
4000 Hz	53.4
5000 Hz	55.1
6300 Hz	60.0

TL-93-089

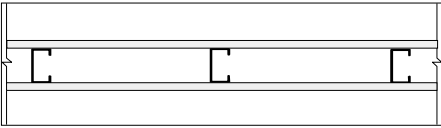
	element 1	element 2	element 3	element 4
type	gypsum board	stud	resilient	gypsum board
material	CX	wood	G.P.	CX
thickness mm	16	90	13	16
gauge				
spacing mm		610	610	
surface density kg/m <sup>2</sup>	10.9			10.9
linear density kg/m		1.3		
total weight kg	80.8	29.1	3.8	81.0
fastener spacing - edge mm	305			305
fastener spacing - field mm	305			305
fastener top track pattern	c			
fastener base track pattern	c			
stud attached to top track		yes		
double header				
orientation	vertical		horizontal	horizontal

TL-93-089  
STC 40



G16\_SS65(406)\_G16

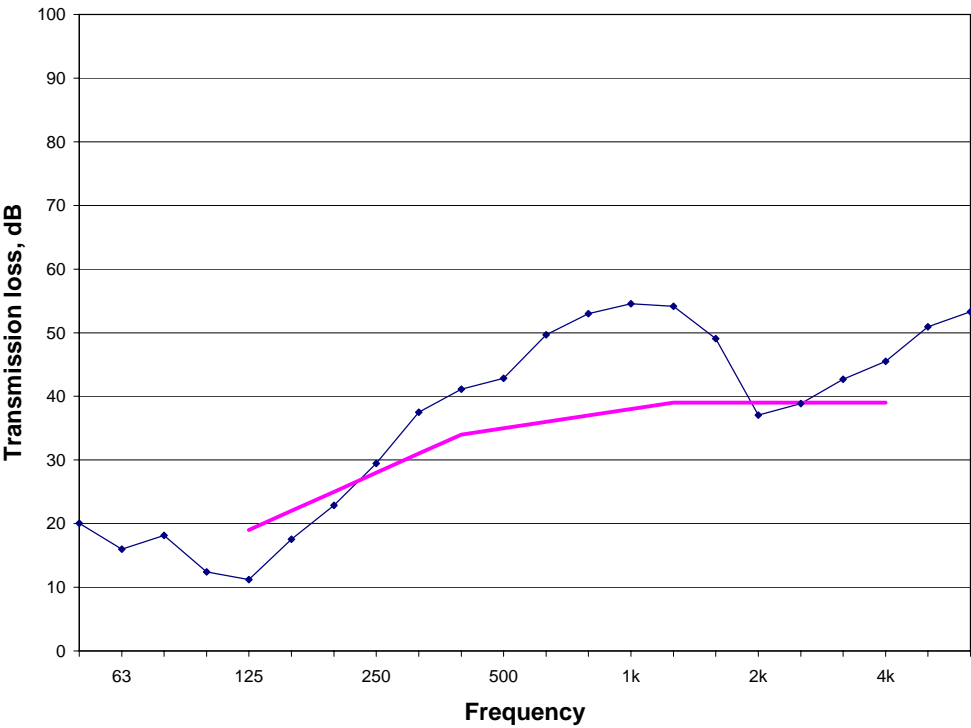
Element	Description:
1	single layer of 16 mm type X gypsum board
2	65 mm steel studs at 406 mm on centre
3	single layer of 16 mm type X gypsum board



TestID	TL-93-057
STC	35
50 Hz	20.1
63 Hz	16.0
80 Hz	18.2
100 Hz	12.4
125 Hz	11.2
160 Hz	17.6
200 Hz	22.9
250 Hz	29.4
315 Hz	37.5
400 Hz	41.1
500 Hz	42.8
630 Hz	49.7
800 Hz	53.0
1000 Hz	54.5
1250 Hz	54.1
1600 Hz	49.1
2000 Hz	37.1
2500 Hz	38.9
3150 Hz	42.7
4000 Hz	45.5
5000 Hz	50.9
6300 Hz	53.3

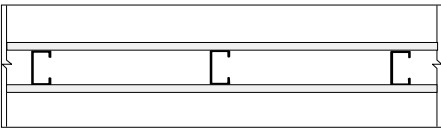
TL-93-057	element 1	element 2	element 3
type	gypsum board	stud	gypsum board
material	CX	steel	CX
thickness mm	16	65	16
gauge		25	
spacing mm		406	
surface density kg/m <sup>2</sup>	11.0		10.9
linear density kg/m		0.5	
total weight kg	81.6	13.4	81.0
fastener spacing - edge mm	305		305
fastener spacing - field mm	305		305
fastener top track pattern	c		c
fastener base track pattern	c		c
stud attached to top track		yes	
double header			
orientation	vertical		vertical

TL-93-057  
STC 35



G16\_SS65(610)\_G16

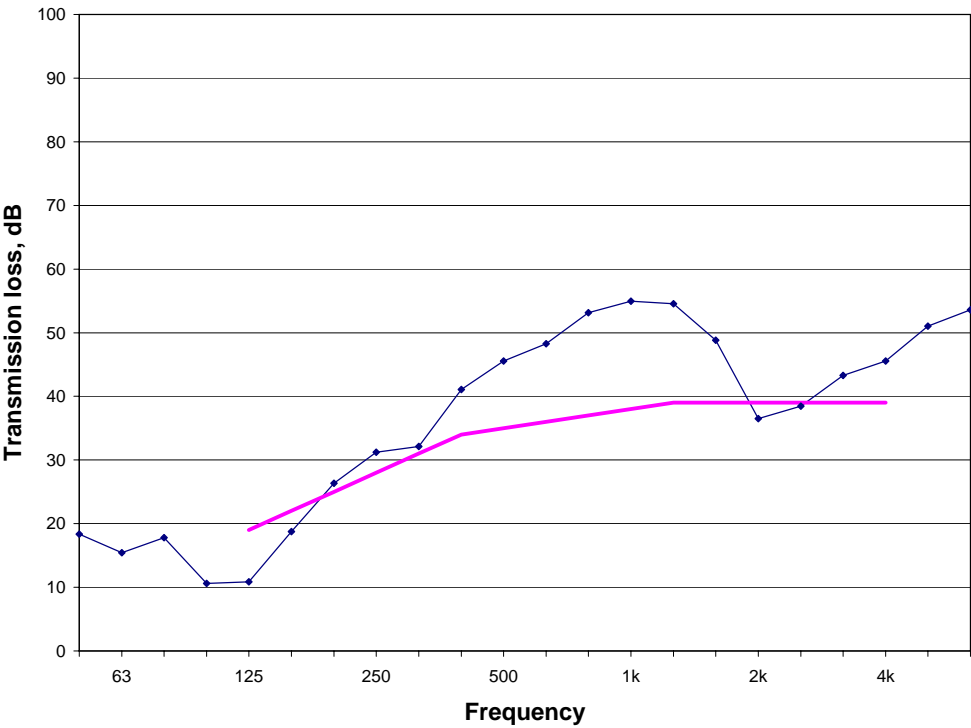
Element	Description:
1	single layer of 16 mm type X gypsum board
2	65 mm steel studs at 610 mm on centre
3	single layer of 16 mm type X gypsum board



TestID	TL-93-032
STC	35
50 Hz	18.3
63 Hz	15.4
80 Hz	17.8
100 Hz	10.6
125 Hz	10.9
160 Hz	18.8
200 Hz	26.3
250 Hz	31.2
315 Hz	32.1
400 Hz	41.1
500 Hz	45.6
630 Hz	48.3
800 Hz	53.1
1000 Hz	54.9
1250 Hz	54.6
1600 Hz	48.8
2000 Hz	36.5
2500 Hz	38.5
3150 Hz	43.3
4000 Hz	45.6
5000 Hz	51.0
6300 Hz	53.6

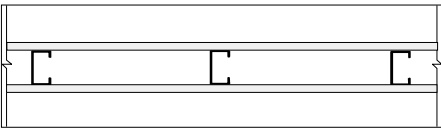
TL-93-032	element 1	element 2	element 3
type	gypsum board	stud	gypsum board
material	CX	steel	CX
thickness mm	16	65	16
gauge		25	
spacing mm		610	
surface density kg/m <sup>2</sup>	11.0		11.0
linear density kg/m		0.5	
total weight kg	81.6	9.8	81.9
fastener spacing - edge mm	305		305
fastener spacing - field mm	305		305
fastener top track pattern	c		c
fastener base track pattern	c		c
stud attached to top track		yes	
double header			
orientation	vertical		vertical

TL-93-032  
STC 35



Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm steel studs at 406 mm on centre
3	single layer of 16 mm type X gypsum board

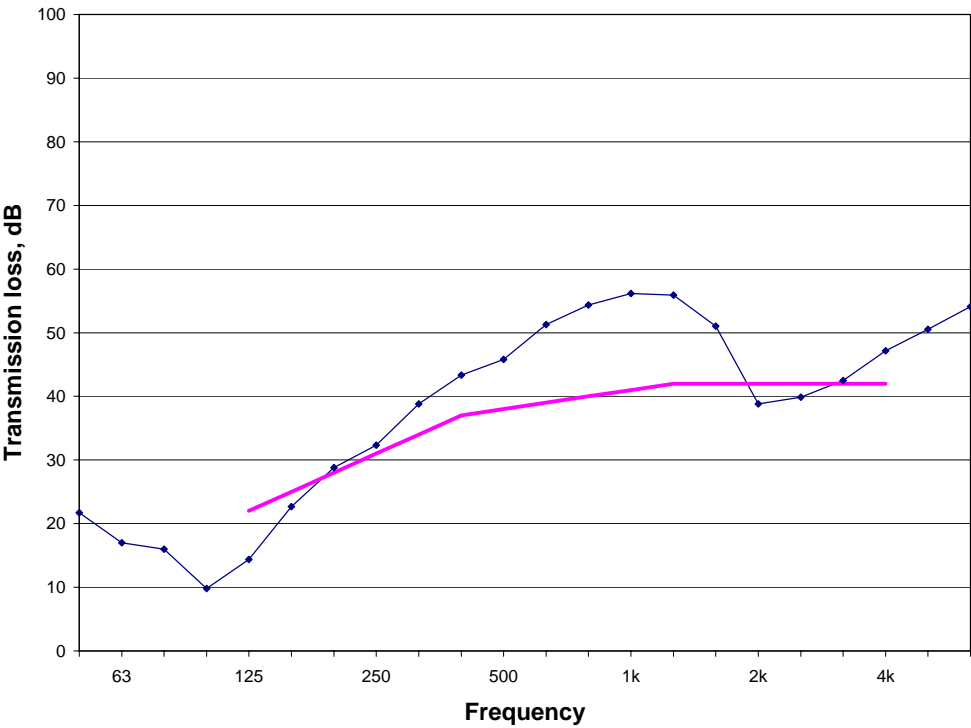
G16\_SS90(406)\_G16



TestID	TL-92-418
STC	38
50 Hz	21.7
63 Hz	17.0
80 Hz	16.0
100 Hz	9.8
125 Hz	14.4
160 Hz	22.7
200 Hz	28.8
250 Hz	32.3
315 Hz	38.8
400 Hz	43.4
500 Hz	45.8
630 Hz	51.3
800 Hz	54.3
1000 Hz	56.2
1250 Hz	55.9
1600 Hz	51.0
2000 Hz	38.8
2500 Hz	39.9
3150 Hz	42.5
4000 Hz	47.2
5000 Hz	50.5
6300 Hz	54.1

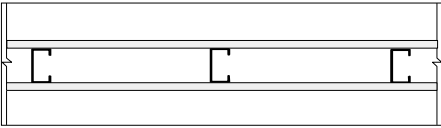
TL-92-418	element 1	element 2	element 3
type	gypsum board	stud	gypsum board
material	CX	steel	CX
thickness mm	16	90	16
gauge		25	
spacing mm		406	
surface density kg/m <sup>2</sup>	10.9		10.9
linear density kg/m		0.6	
total weight kg	80.7	15.8	81.3
fastener spacing - edge mm	305		305
fastener spacing - field mm	305		305
fastener top track pattern	c		c
fastener base track pattern	c		c
stud attached to top track		yes	
double header			
orientation	vertical		vertical

TL-92-418  
STC 38



Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm steel studs at 610 mm on centre
3	single layer of 16 mm type X gypsum board

G16\_SS90(610)\_G16

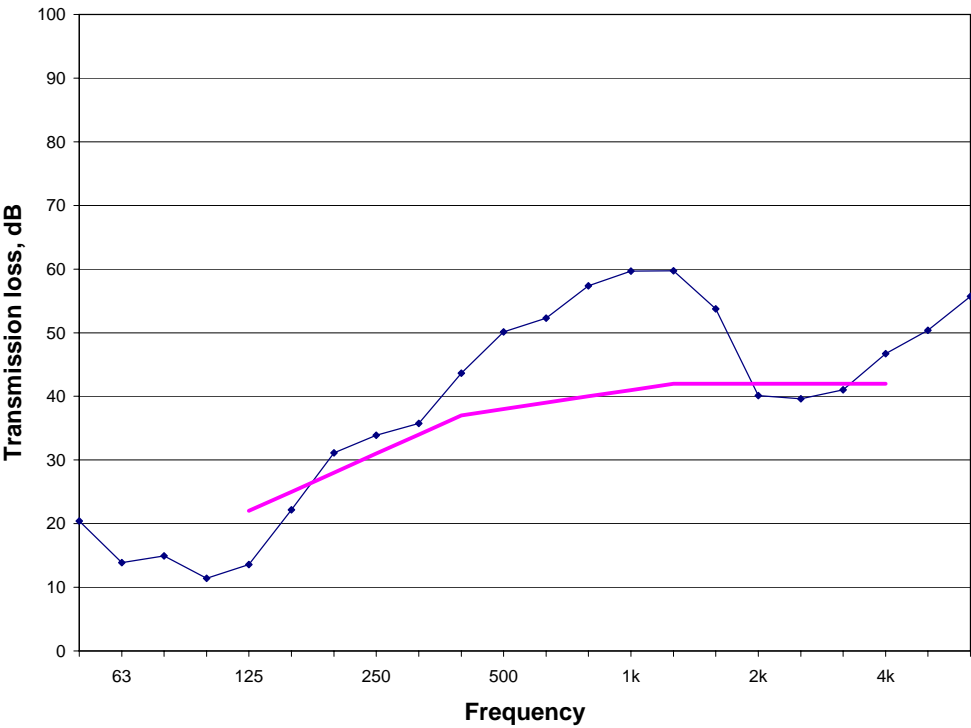


TestID	TL-92-376
STC	38
50 Hz	20.4
63 Hz	13.9
80 Hz	14.9
100 Hz	11.4
125 Hz	13.6
160 Hz	22.2
200 Hz	31.1
250 Hz	33.9
315 Hz	35.8
400 Hz	43.7
500 Hz	50.1
630 Hz	52.3
800 Hz	57.4
1000 Hz	59.7
1250 Hz	59.7
1600 Hz	53.7
2000 Hz	40.1
2500 Hz	39.6
3150 Hz	41.0
4000 Hz	46.7
5000 Hz	50.4
6300 Hz	55.7

TL-92-376

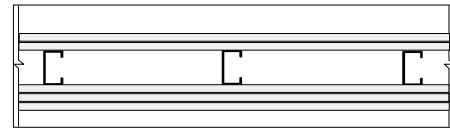
	element 1	element 2	element 3
type	gypsum board	stud	gypsum board
material	CX	steel	CX
thickness mm	16	90	16
gauge		25	
spacing mm		610	
surface density kg/m <sup>2</sup>	10.9		11.1
linear density kg/m		0.5	
total weight kg	81.3	11.4	82.6
fastener spacing - edge mm	305		305
fastener spacing - field mm	305		305
fastener top track pattern	a		a
fastener base track pattern	a		a
stud attached to top track		yes	
double header			
orientation	vertical		vertical

TL-92-376  
STC 38



2G16\_SS90(610)\_2G16\_G13

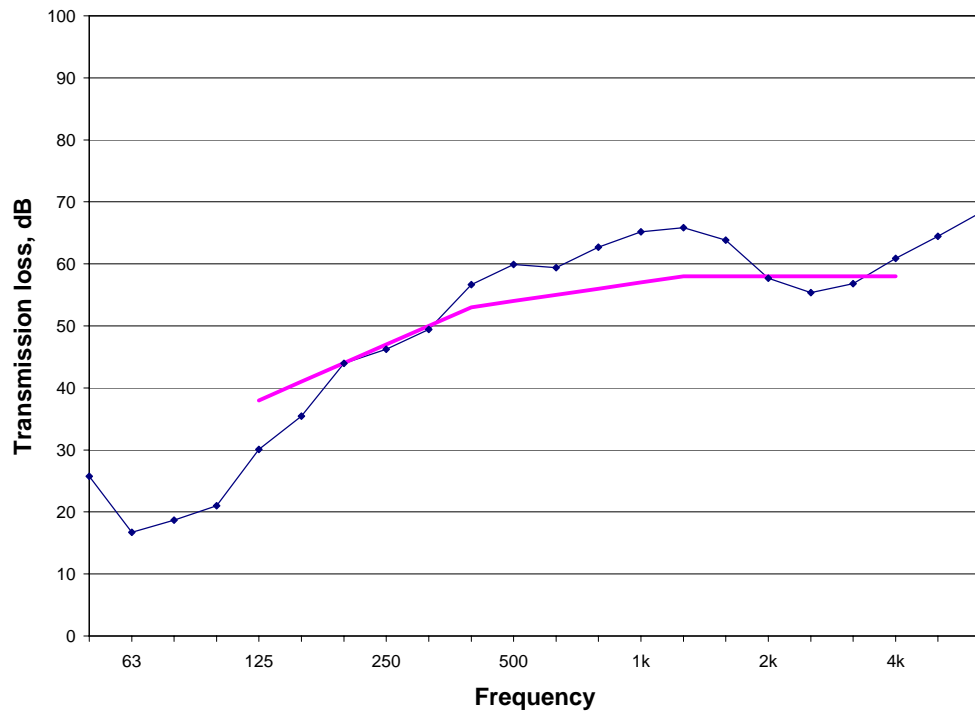
Element	Description:
1	single layer of 16 mm type X gypsum board
2	single layer of 16 mm type X gypsum board
3	90 mm steel studs at 610 mm on centre
4	single layer of 16 mm type X gypsum board
5	single layer of 16 mm type X gypsum board
6	single layer of 13 mm gypsum board



TestID	TL-92-371
STC	54
50 Hz	25.7
63 Hz	16.7
80 Hz	18.7
100 Hz	21.0
125 Hz	30.1
160 Hz	35.5
200 Hz	44.0
250 Hz	46.2
315 Hz	49.4
400 Hz	56.7
500 Hz	59.9
630 Hz	59.4
800 Hz	62.7
1000 Hz	65.2
1250 Hz	65.9
1600 Hz	63.9
2000 Hz	57.7
2500 Hz	55.4
3150 Hz	56.8
4000 Hz	60.9
5000 Hz	64.5
6300 Hz	68.3

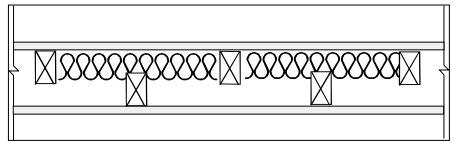
TL-92-371	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	gypsum board	stud	gypsum board	gypsum board	gypsum board
material	CX	CX	steel	CX	CX	B
thickness mm	16	16	90	16	16	13
gauge			25			
spacing mm			610			
surface density kg/m <sup>2</sup>	11.1	10.9		11.1	11.0	8.2
linear density kg/m			0.5			
total weight kg	82.2	81.3	11.4	82.6	81.8	61.0
fastener spacing - edge mm	305	305		305	305	305
fastener spacing - field mm	305	610		610	610	305
fastener top track pattern	a	a		a	a	a
fastener base track pattern	a	a		a	a	a
stud attached to top track			yes			
double header						
orientation	vertical	vertical		vertical	vertical	horizontal

TL-92-371  
STC 54



Element	Description:
1	single layer of 13 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	140 mm of blown cellulose fibre insulation in cavity
4	single layer of 13 mm type X gypsum board

G13\_SWS140(406)\_CFL140\_G13

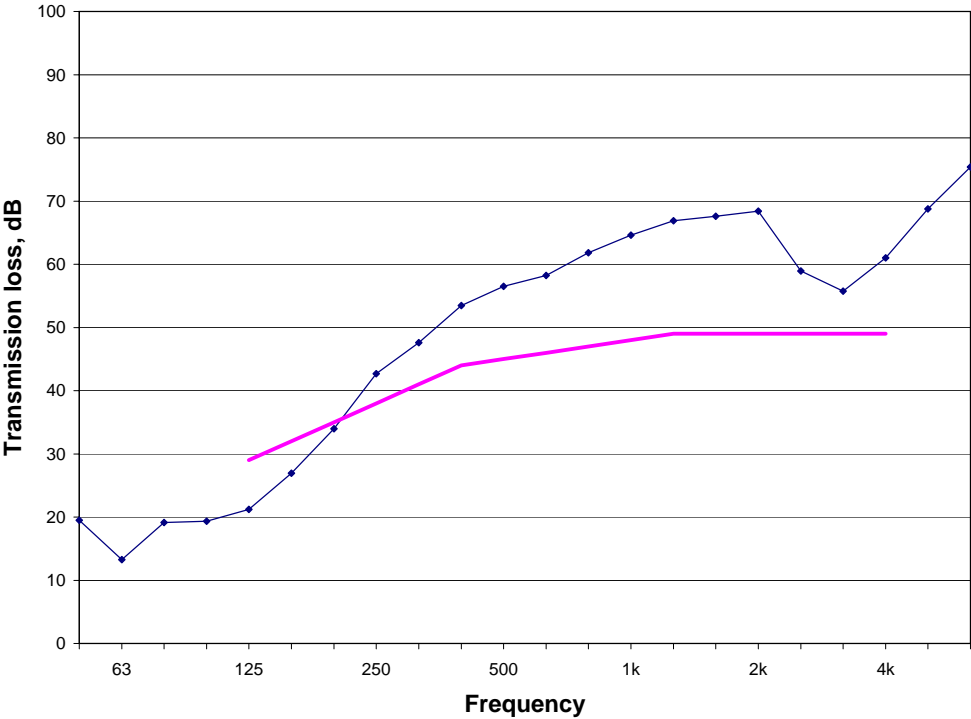


TestID	TL-93-241
STC	45
50 Hz	19.5
63 Hz	13.3
80 Hz	19.1
100 Hz	19.3
125 Hz	21.2
160 Hz	26.9
200 Hz	34.0
250 Hz	42.7
315 Hz	47.6
400 Hz	53.5
500 Hz	56.5
630 Hz	58.2
800 Hz	61.8
1000 Hz	64.6
1250 Hz	66.9
1600 Hz	67.6
2000 Hz	68.4
2500 Hz	59.0
3150 Hz	55.8
4000 Hz	61.0
5000 Hz	68.8
6300 Hz	75.4

TL-93-241

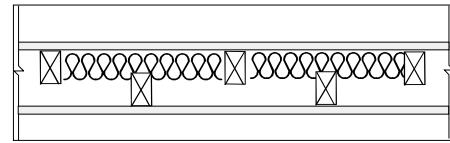
	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	AX	wood	C2	AX
thickness mm	13	90	140	13
plate width		140		
spacing mm		406		
surface density kg/m <sup>2</sup>	10.0		7.0	10.0
linear density kg/m		1.2		
total weight kg	74.3	62.5	51.8	74.3
fastener spacing - edge mm	406			406
fastener spacing - field mm	406			406
fastener top track pattern	c			c
fastener base track pattern	c			c
stud attached to top track		yes		
double header				
orientation	vertical			vertical

TL-93-241  
STC 45



Element	Description:
1	single layer of 13 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	40 mm of sprayed cellulose fibre insulation in cavity
4	single layer of 13 mm type X gypsum board

G13\_SWS140(406)\_CFS40\_G13

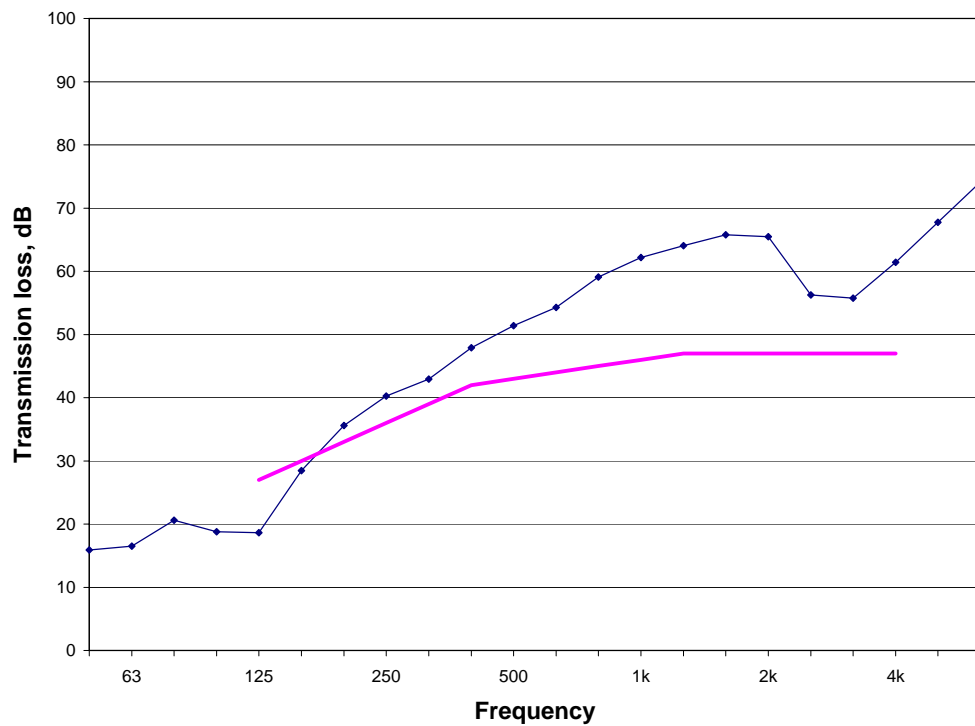


TestID	TL-93-258
STC	43
50 Hz	15.9
63 Hz	16.5
80 Hz	20.6
100 Hz	18.8
125 Hz	18.6
160 Hz	28.4
200 Hz	35.6
250 Hz	40.3
315 Hz	42.9
400 Hz	47.9
500 Hz	51.4
630 Hz	54.3
800 Hz	59.1
1000 Hz	62.2
1250 Hz	64.0
1600 Hz	65.8
2000 Hz	65.5
2500 Hz	56.3
3150 Hz	55.8
4000 Hz	61.4
5000 Hz	67.8
6300 Hz	74.1

TL-93-258

	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	AX	wood	C1	AX
thickness mm	13	90	40	13
plate width		140		
spacing mm		406		
surface density kg/m <sup>2</sup>	10.0		2.7	10.0
linear density kg/m		1.2		
total weight kg	74.1	62.5	20.2	74.2
fastener spacing - edge mm	406			406
fastener spacing - field mm	406			406
fastener top track pattern	c			c
fastener base track pattern	c			c
stud attached to top track		yes		
double header				
orientation	vertical			vertical

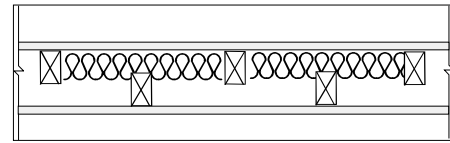
TL-93-258  
STC 43





Element	Description:
1	single layer of 13 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	130 mm of glass fibre insulation in cavity
4	single layer of 13 mm type X gypsum board

G13\_SWS140(406)\_GFB65\_GFB65\_G13

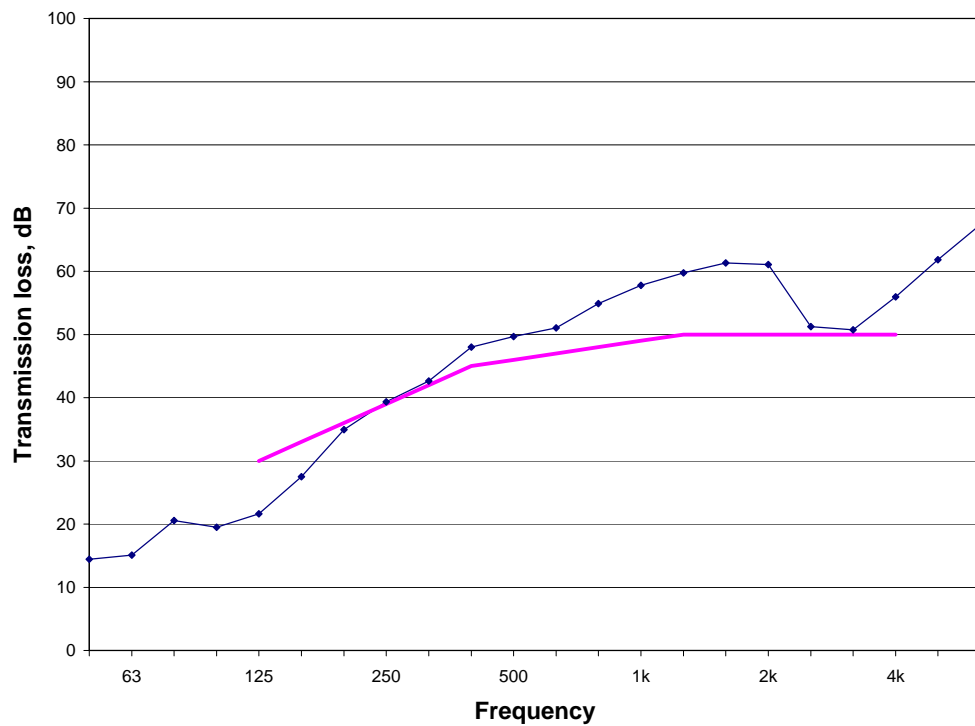


TestID	TL-93-198
STC	46
50 Hz	14.4
63 Hz	15.1
80 Hz	20.6
100 Hz	19.5
125 Hz	21.6
160 Hz	27.5
200 Hz	34.9
250 Hz	39.3
315 Hz	42.6
400 Hz	48.0
500 Hz	49.7
630 Hz	51.0
800 Hz	54.9
1000 Hz	57.7
1250 Hz	59.7
1600 Hz	61.3
2000 Hz	61.1
2500 Hz	51.2
3150 Hz	50.8
4000 Hz	56.0
5000 Hz	61.8
6300 Hz	67.4

TL-93-198

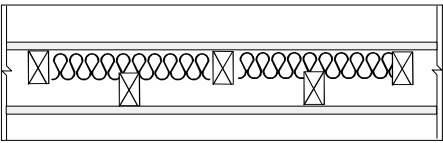
	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	AX	wood	G1	AX
thickness mm	13	90	130	13
plate width		140		
spacing mm		406		
surface density kg/m <sup>2</sup>	10.0		1.4	10.0
linear density kg/m		1.2		
total weight kg	74.6	62.5	10.4	74.3
fastener spacing - edge mm	406			406
fastener spacing - field mm	406			406
fastener top track pattern	c			c
fastener base track pattern	c			c
stud attached to top track		yes		
double header				
orientation	vertical			vertical

TL-93-198  
STC 46



Element	Description:
1	single layer of 13 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	130 mm of glass fibre insulation in cavity
4	single layer of 13 mm type X gypsum board

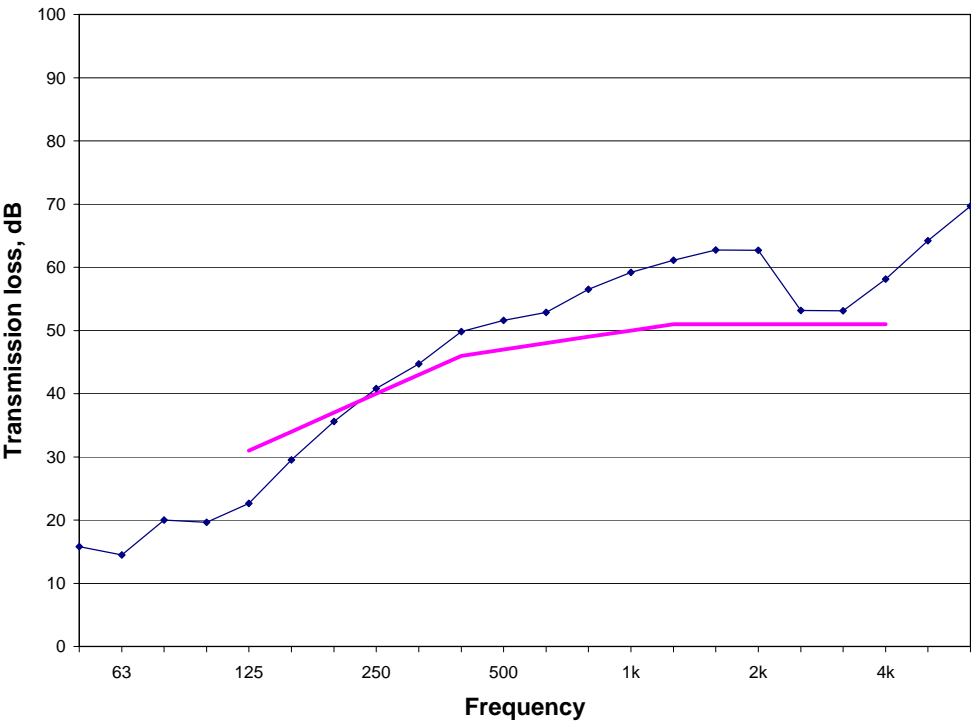
G13\_SWS140(406)\_GFB65\_GFB65\_G13



TestID	TL-93-205
STC	47
50 Hz	15.8
63 Hz	14.5
80 Hz	20.0
100 Hz	19.7
125 Hz	22.6
160 Hz	29.5
200 Hz	35.6
250 Hz	40.8
315 Hz	44.7
400 Hz	49.8
500 Hz	51.6
630 Hz	52.9
800 Hz	56.5
1000 Hz	59.2
1250 Hz	61.1
1600 Hz	62.7
2000 Hz	62.7
2500 Hz	53.2
3150 Hz	53.1
4000 Hz	58.1
5000 Hz	64.2
6300 Hz	69.7

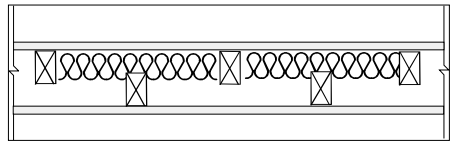
TL-93-205	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	AX	wood	G1	AX
thickness mm	13	90	130	13
plate width		140		
spacing mm		406		
surface density kg/m <sup>2</sup>	10.0		1.4	10.0
linear density kg/m		1.2		
total weight kg	74.6	62.5	10.4	74.3
fastener spacing - edge mm	406			406
fastener spacing - field mm	406			406
fastener top track pattern	d			c
fastener base track pattern	c			c
stud attached to top track		yes		
double header				
orientation	vertical			vertical

TL-93-205  
STC 47



Element	Description:
1	single layer of 13 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	130 mm of glass fibre insulation in cavity
4	single layer of 13 mm type X gypsum board

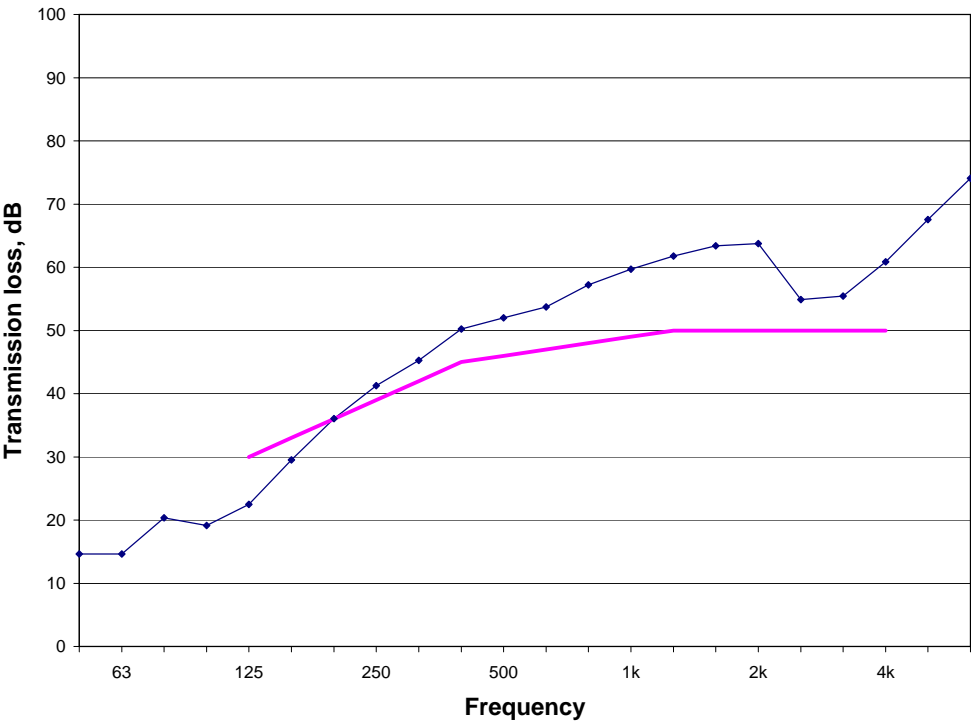
G13\_SWS140(406)\_GFB65\_GFB65\_G13



TestID	TL-93-206
STC	46
50 Hz	14.6
63 Hz	14.6
80 Hz	20.3
100 Hz	19.1
125 Hz	22.5
160 Hz	29.5
200 Hz	36.0
250 Hz	41.3
315 Hz	45.3
400 Hz	50.2
500 Hz	52.0
630 Hz	53.7
800 Hz	57.2
1000 Hz	59.7
1250 Hz	61.8
1600 Hz	63.4
2000 Hz	63.8
2500 Hz	54.9
3150 Hz	55.4
4000 Hz	60.9
5000 Hz	67.6
6300 Hz	74.1

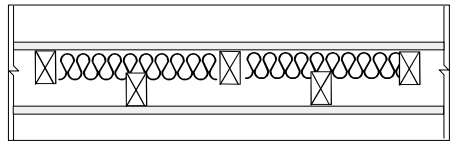
TL-93-206	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	AX	wood	G1	AX
thickness mm	13	90	130	13
plate width		140		
spacing mm		406		
surface density kg/m <sup>2</sup>	10.0		1.4	10.0
linear density kg/m		1.2		
total weight kg	74.6	62.5	10.4	74.3
fastener spacing - edge mm	406			406
fastener spacing - field mm	406			406
fastener top track pattern	d			d
fastener base track pattern	d			d
stud attached to top track		yes		
double header				
orientation	vertical			vertical

TL-93-206  
STC 46



Element	Description:
1	single layer of 13 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	single layer of 13 mm type X gypsum board

G13\_SWS140(406)\_GFB90\_G13

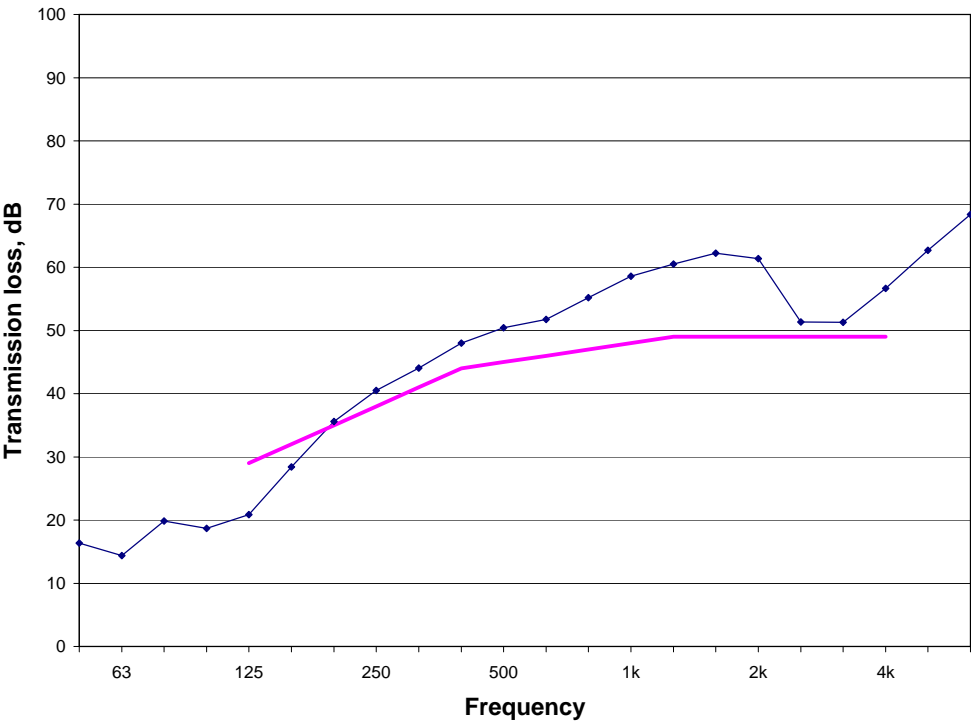


TestID	TL-93-208
STC	45
50 Hz	16.4
63 Hz	14.4
80 Hz	19.9
100 Hz	18.7
125 Hz	20.8
160 Hz	28.4
200 Hz	35.6
250 Hz	40.5
315 Hz	44.0
400 Hz	48.0
500 Hz	50.4
630 Hz	51.7
800 Hz	55.2
1000 Hz	58.6
1250 Hz	60.5
1600 Hz	62.2
2000 Hz	61.3
2500 Hz	51.3
3150 Hz	51.3
4000 Hz	56.6
5000 Hz	62.7
6300 Hz	68.3

TL-93-208

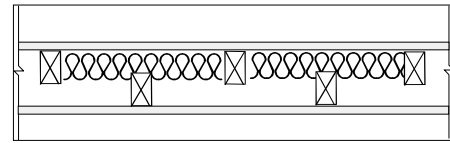
	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	AX	wood	G1	AX
thickness mm	13	90	90	13
plate width		140		
spacing mm		406		
surface density kg/m <sup>2</sup>	9.9		1.1	10.1
linear density kg/m		1.2		
total weight kg	73.9	62.5	11.5	74.7
fastener spacing - edge mm	406			406
fastener spacing - field mm	406			406
fastener top track pattern	c			c
fastener base track pattern	c			c
stud attached to top track		yes		
double header				
orientation	vertical			vertical

TL-93-208  
STC 45



Element	Description:
1	single layer of 13 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	single layer of 13 mm type X gypsum board

G13\_SWS140(406)\_GFB90\_G13

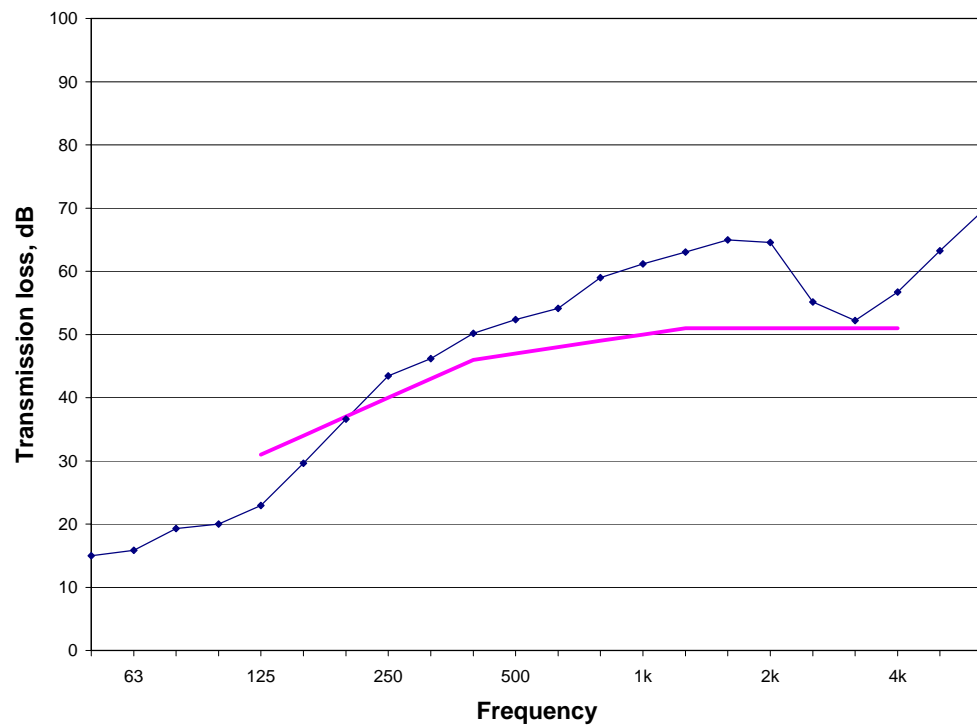


TestID	TL-93-247
STC	47
50 Hz	15.0
63 Hz	15.8
80 Hz	19.3
100 Hz	20.0
125 Hz	22.9
160 Hz	29.6
200 Hz	36.6
250 Hz	43.4
315 Hz	46.2
400 Hz	50.2
500 Hz	52.3
630 Hz	54.1
800 Hz	59.0
1000 Hz	61.2
1250 Hz	63.0
1600 Hz	65.0
2000 Hz	64.5
2500 Hz	55.1
3150 Hz	52.2
4000 Hz	56.7
5000 Hz	63.2
6300 Hz	69.5

TL-93-247

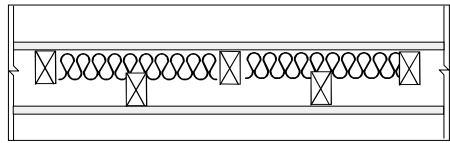
	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	AX	wood	G2	AX
thickness mm	13	90	90	13
plate width		140		
spacing mm		406		
surface density kg/m <sup>2</sup>	10.0		1.5	10.0
linear density kg/m		1.3		
total weight kg	74.0	65.7	10.8	74.0
fastener spacing - edge mm	406			406
fastener spacing - field mm	406			406
fastener top track pattern	c			c
fastener base track pattern	c			c
stud attached to top track		yes		
double header				
orientation	vertical			vertical

TL-93-247  
STC 47



Element	Description:
1	single layer of 13 mm gypsum board
2	90 mm wood studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	single layer of 13 mm gypsum board

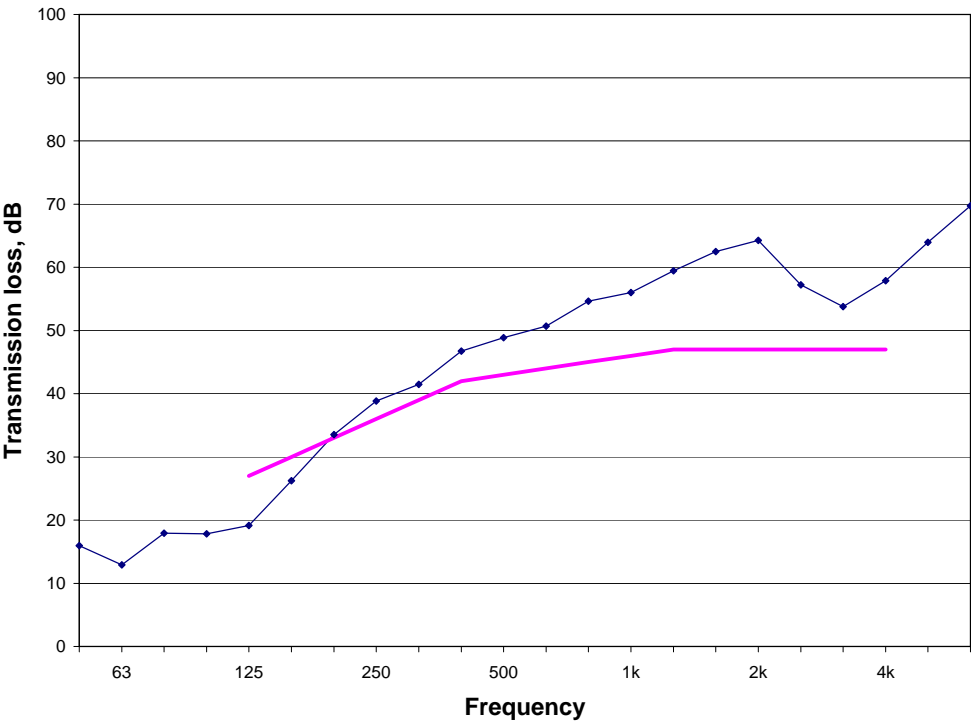
G13\_SWS140(406)\_GFB90\_G13



TestID	TL-93-228
STC	43
50 Hz	15.9
63 Hz	12.9
80 Hz	17.9
100 Hz	17.8
125 Hz	19.1
160 Hz	26.2
200 Hz	33.5
250 Hz	38.9
315 Hz	41.5
400 Hz	46.7
500 Hz	48.8
630 Hz	50.7
800 Hz	54.6
1000 Hz	56.0
1250 Hz	59.4
1600 Hz	62.5
2000 Hz	64.2
2500 Hz	57.2
3150 Hz	53.8
4000 Hz	57.9
5000 Hz	63.9
6300 Hz	69.7

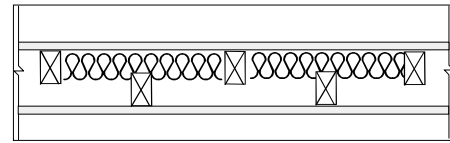
TL-93-228	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	B	wood	G1	B
thickness mm	13	90	90	13
plate width		140		
spacing mm		406		
surface density kg/m <sup>2</sup>	8.2		1.1	8.3
linear density kg/m		1.2		
total weight kg	61.2	62.5	11.5	61.7
fastener spacing - edge mm	406			406
fastener spacing - field mm	406			406
fastener top track pattern	c			c
fastener base track pattern	c			c
stud attached to top track		yes		
double header				
orientation	vertical			vertical

TL-93-228  
STC 43



Element	Description:
1	single layer of 13 mm gypsum board
2	90 mm wood studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	single layer of 13 mm gypsum board

G13\_SWS140(406)\_GFB90\_G13

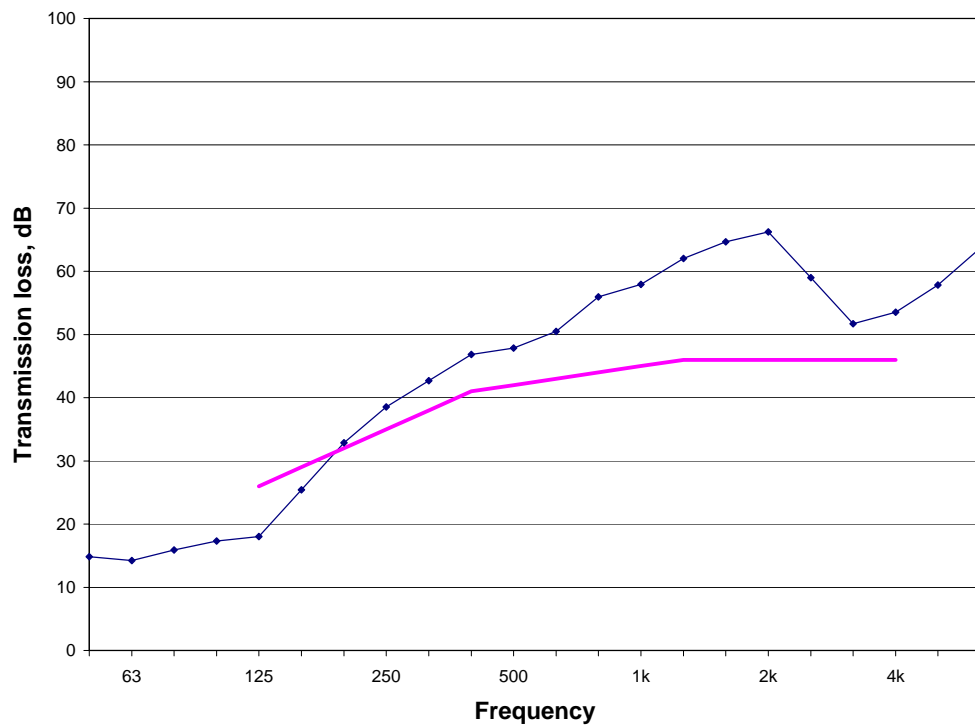


TestID	TL-93-434
STC	42
50 Hz	14.9
63 Hz	14.2
80 Hz	15.9
100 Hz	17.3
125 Hz	18.0
160 Hz	25.4
200 Hz	32.8
250 Hz	38.5
315 Hz	42.7
400 Hz	46.8
500 Hz	47.9
630 Hz	50.5
800 Hz	56.0
1000 Hz	57.9
1250 Hz	62.0
1600 Hz	64.6
2000 Hz	66.2
2500 Hz	59.0
3150 Hz	51.7
4000 Hz	53.5
5000 Hz	57.8
6300 Hz	63.7

TL-93-434

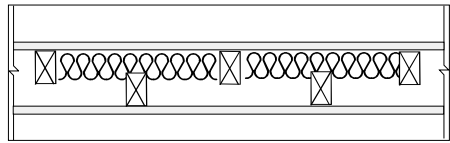
	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	BL	wood	G1	BL
thickness mm	13	90	90	13
plate width		140		
spacing mm		406		
surface density kg/m <sup>2</sup>	7.3		1.1	7.2
linear density kg/m		1.4		
total weight kg	54.5	69.7	7.8	53.8
fastener spacing - edge mm	406			406
fastener spacing - field mm	406			406
fastener top track pattern	c			c
fastener base track pattern	c			c
stud attached to top track		yes		
double header				
orientation	vertical			vertical

TL-93-434  
STC 42



Element	Description:
1	single layer of 13 mm gypsum board
2	90 mm wood studs at 406 mm on centre
3	90 mm of mineral fibre insulation in cavity
4	single layer of 13 mm gypsum board

G13\_SWS140(406)\_MFB90\_G13

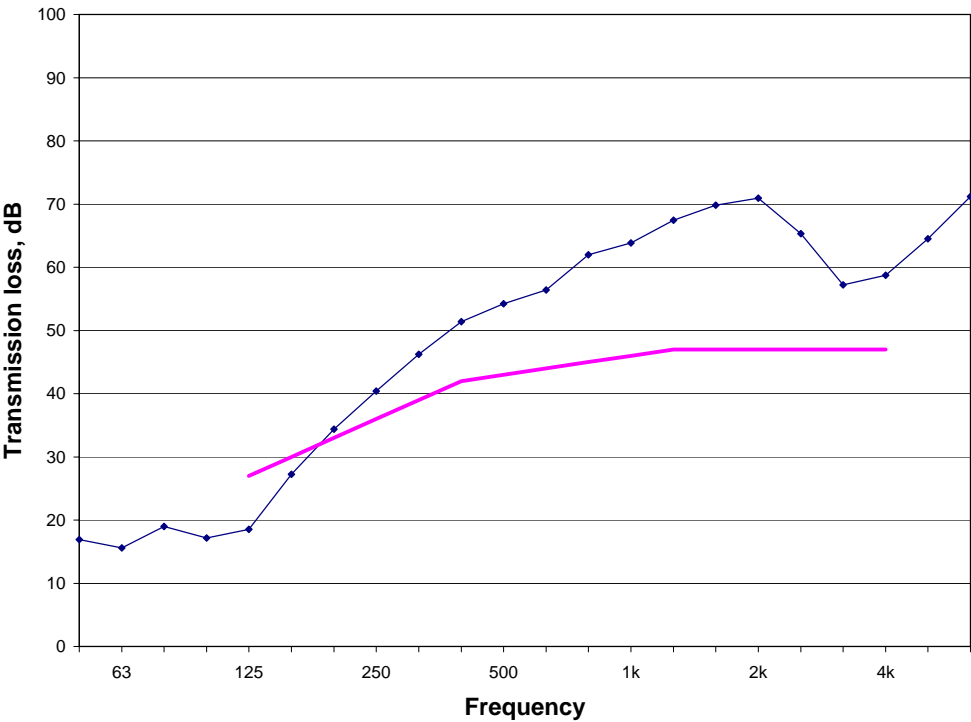


TestID	TL-93-245
STC	43
50 Hz	16.9
63 Hz	15.6
80 Hz	19.0
100 Hz	17.1
125 Hz	18.5
160 Hz	27.2
200 Hz	34.4
250 Hz	40.4
315 Hz	46.2
400 Hz	51.4
500 Hz	54.2
630 Hz	56.4
800 Hz	62.0
1000 Hz	63.9
1250 Hz	67.4
1600 Hz	69.8
2000 Hz	70.9
2500 Hz	65.3
3150 Hz	57.2
4000 Hz	58.7
5000 Hz	64.5
6300 Hz	71.2

TL-93-245

	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	B	wood	M1	B
thickness mm	13	90	90	13
plate width		140		
spacing mm		406		
surface density kg/m <sup>2</sup>	8.3		2.9	8.2
linear density kg/m		1.3		
total weight kg	61.7	65.7	21.8	61.2
fastener spacing - edge mm	406			406
fastener spacing - field mm	406			406
fastener top track pattern	c			c
fastener base track pattern	c			c
stud attached to top track		yes		
double header				
orientation	vertical			vertical

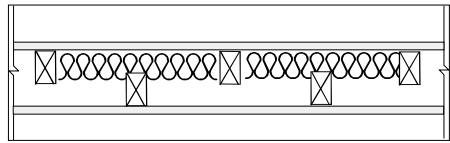
TL-93-245  
STC 43





Element	Description:
1	single layer of 13 mm type X gypsum board
2	90 mm wood studs at 610 mm on centre
3	90 mm of glass fibre insulation in cavity
4	single layer of 13 mm type X gypsum board

G13\_SWS140(610)\_GFB90\_G13

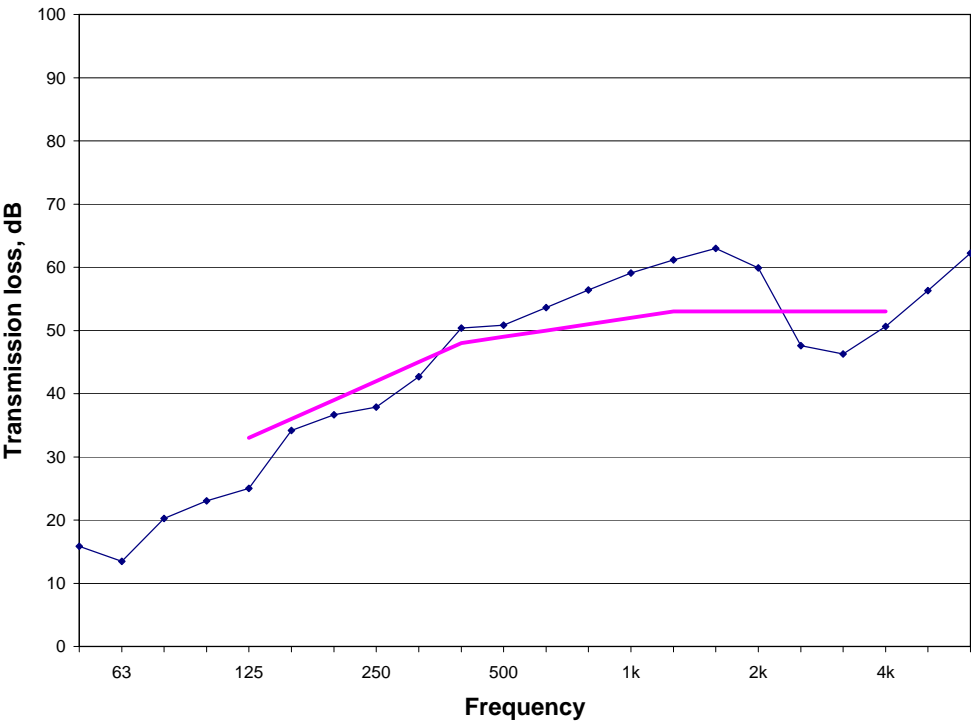


TestID	TL-93-257
STC	49
50 Hz	15.8
63 Hz	13.5
80 Hz	20.3
100 Hz	23.0
125 Hz	25.0
160 Hz	34.2
200 Hz	36.7
250 Hz	37.9
315 Hz	42.7
400 Hz	50.4
500 Hz	50.8
630 Hz	53.6
800 Hz	56.4
1000 Hz	59.1
1250 Hz	61.2
1600 Hz	63.0
2000 Hz	59.9
2500 Hz	47.6
3150 Hz	46.3
4000 Hz	50.6
5000 Hz	56.3
6300 Hz	62.2

TL-93-257

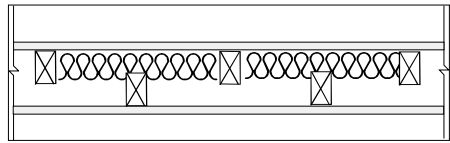
	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	AX	wood	G1	AX
thickness mm	13	90	90	13
plate width		140		
spacing mm		610		
surface density kg/m <sup>2</sup>	10.0		1.1	10.0
linear density kg/m		1.5		
total weight kg	74.0	52.0	9.8	74.2
fastener spacing - edge mm	305			305
fastener spacing - field mm	305			305
fastener top track pattern	a			a
fastener base track pattern	a			a
stud attached to top track		yes		
double header				
orientation	vertical			vertical

TL-93-257  
STC 49



Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	140 mm of blown cellulose fibre insulation in cavity
4	single layer of 16 mm type X gypsum board

G16\_SWS140(406)\_CFL140\_G16

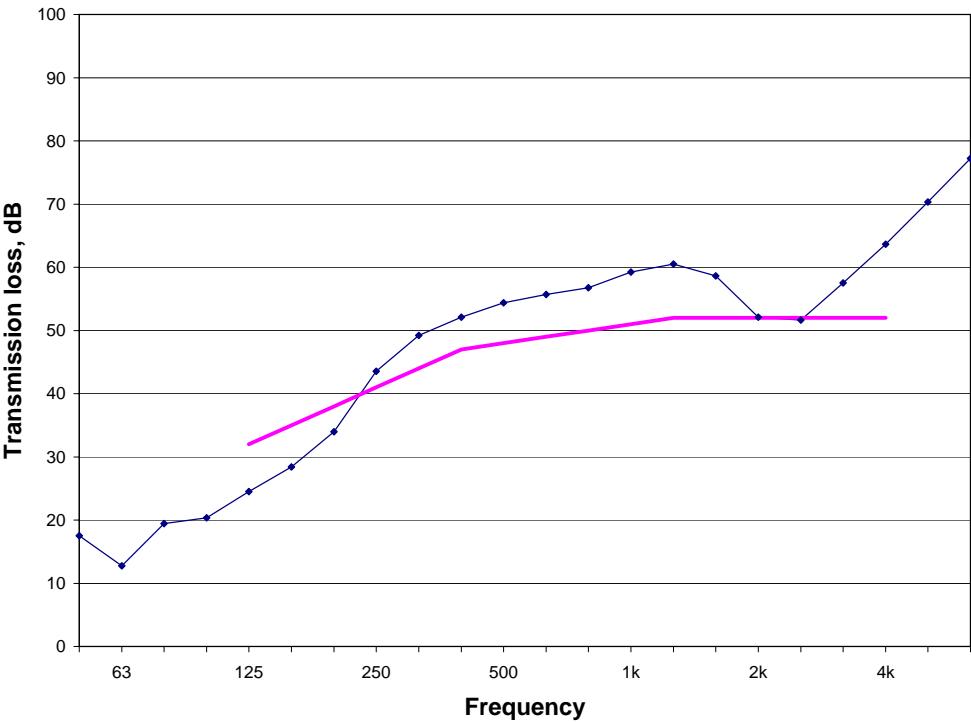


TestID	TL-93-231
STC	48
50 Hz	17.5
63 Hz	12.7
80 Hz	19.5
100 Hz	20.3
125 Hz	24.5
160 Hz	28.4
200 Hz	34.0
250 Hz	43.5
315 Hz	49.2
400 Hz	52.1
500 Hz	54.4
630 Hz	55.7
800 Hz	56.8
1000 Hz	59.2
1250 Hz	60.5
1600 Hz	58.7
2000 Hz	52.1
2500 Hz	51.6
3150 Hz	57.5
4000 Hz	63.6
5000 Hz	70.3
6300 Hz	77.2

TL-93-231

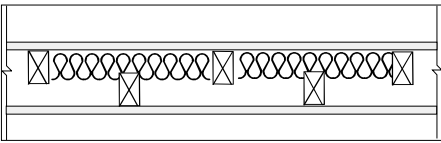
	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	CX	wood	C2	CX
thickness mm	16	90	140	16
plate width		140		
spacing mm		406		
surface density kg/m <sup>2</sup>	11.5		7.0	11.4
linear density kg/m		1.2		
total weight kg	85.2	62.5	51.8	84.8
fastener spacing - edge mm	406			406
fastener spacing - field mm	406			406
fastener top track pattern	c			c
fastener base track pattern	c			c
stud attached to top track		yes		
double header				
orientation	vertical			vertical

TL-93-231  
STC 48



Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	40 mm of sprayed cellulose fibre insulation in cavity
4	single layer of 16 mm type X gypsum board

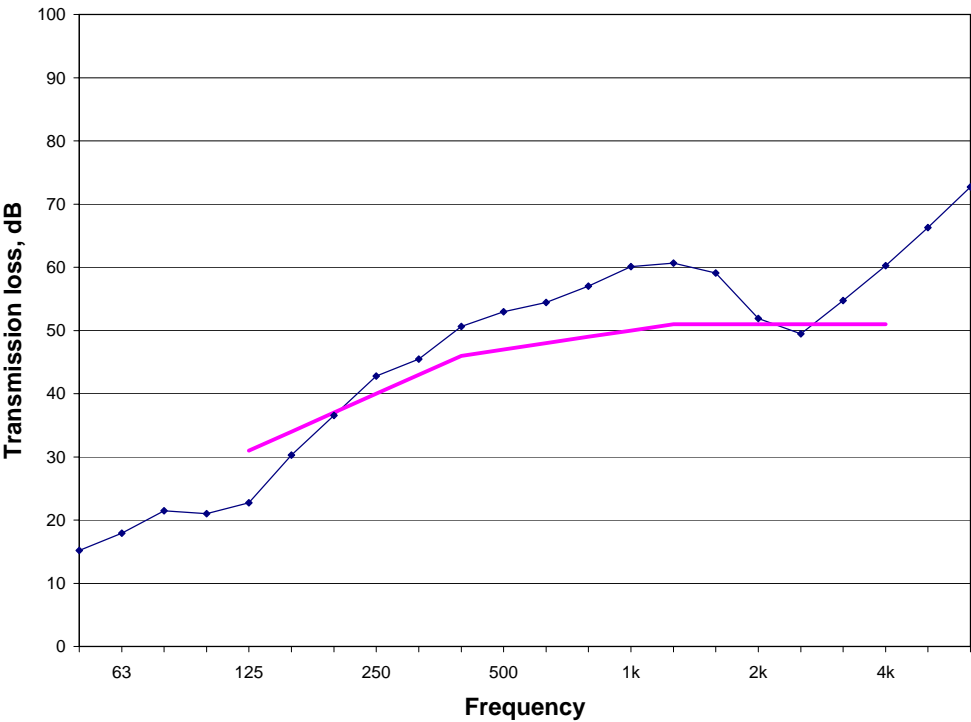
G16\_SWS140(406)\_CFS40\_G16



TestID	TL-93-242
STC	47
50 Hz	15.2
63 Hz	17.9
80 Hz	21.5
100 Hz	21.0
125 Hz	22.7
160 Hz	30.3
200 Hz	36.6
250 Hz	42.8
315 Hz	45.5
400 Hz	50.6
500 Hz	53.0
630 Hz	54.5
800 Hz	57.0
1000 Hz	60.1
1250 Hz	60.7
1600 Hz	59.1
2000 Hz	51.9
2500 Hz	49.5
3150 Hz	54.8
4000 Hz	60.2
5000 Hz	66.3
6300 Hz	72.7

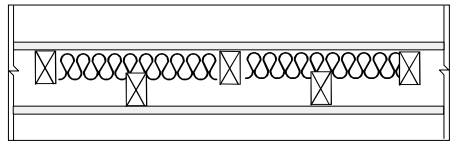
TL-93-242	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	CX	wood	C1	CX
thickness mm	16	90	40	16
plate width		140		
spacing mm		406		
surface density kg/m <sup>2</sup>	11.4		11.5	11.3
linear density kg/m		1.3		
total weight kg	84.4	65.7	21.0	84.2
fastener spacing - edge mm	406			406
fastener spacing - field mm	406			406
fastener top track pattern	c			c
fastener base track pattern	c			c
stud attached to top track		yes		
double header				
orientation	vertical			vertical

TL-93-242  
STC 47



Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	130 mm of glass fibre insulation in cavity
4	single layer of 16 mm type X gypsum board

G16\_SWS140(406)\_GFB65\_GFB65\_G16

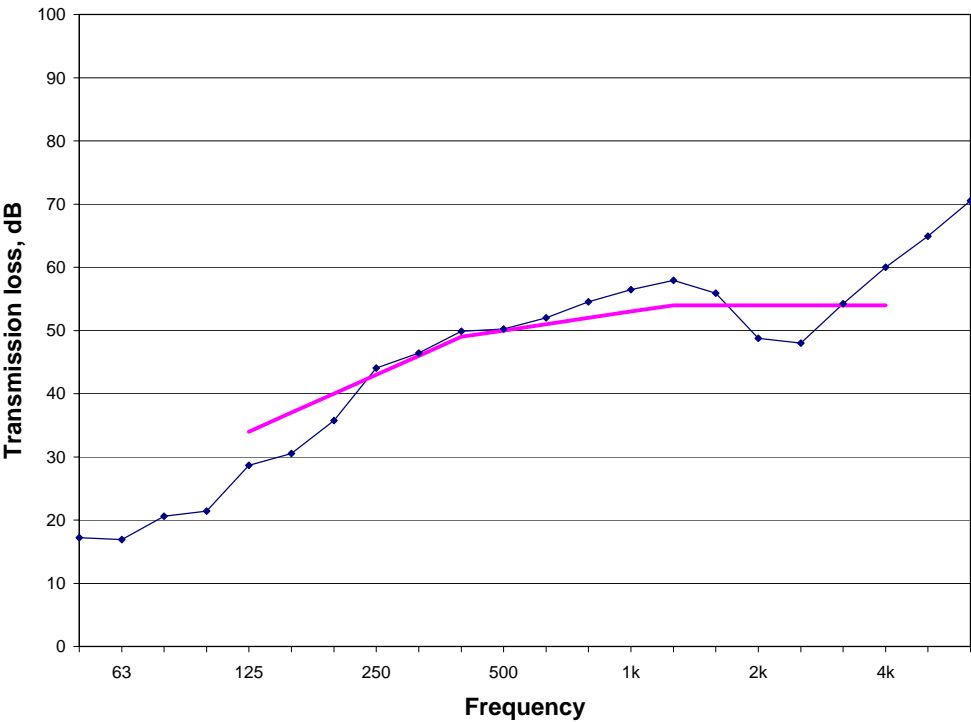


TestID	TL-93-249
STC	50
50 Hz	17.2
63 Hz	16.9
80 Hz	20.6
100 Hz	21.4
125 Hz	28.6
160 Hz	30.5
200 Hz	35.7
250 Hz	44.1
315 Hz	46.4
400 Hz	49.9
500 Hz	50.2
630 Hz	52.0
800 Hz	54.5
1000 Hz	56.4
1250 Hz	57.9
1600 Hz	55.9
2000 Hz	48.8
2500 Hz	48.0
3150 Hz	54.2
4000 Hz	60.0
5000 Hz	64.9
6300 Hz	70.5

TL-93-249

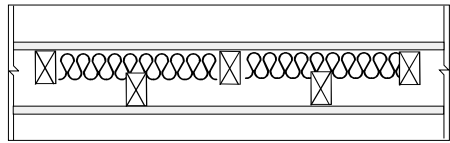
	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	CX	wood	G1	CX
thickness mm	16	90	130	16
plate width		140		
spacing mm		406		
surface density kg/m <sup>2</sup>	11.8		1.6	11.6
linear density kg/m		1.3		
total weight kg	87.5	65.7	11.4	86.0
fastener spacing - edge mm	406			406
fastener spacing - field mm	406			406
fastener top track pattern	c			c
fastener base track pattern	c			c
stud attached to top track		yes		
double header				
orientation	vertical			vertical

TL-93-249  
STC 50



Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	single layer of 16 mm type X gypsum board

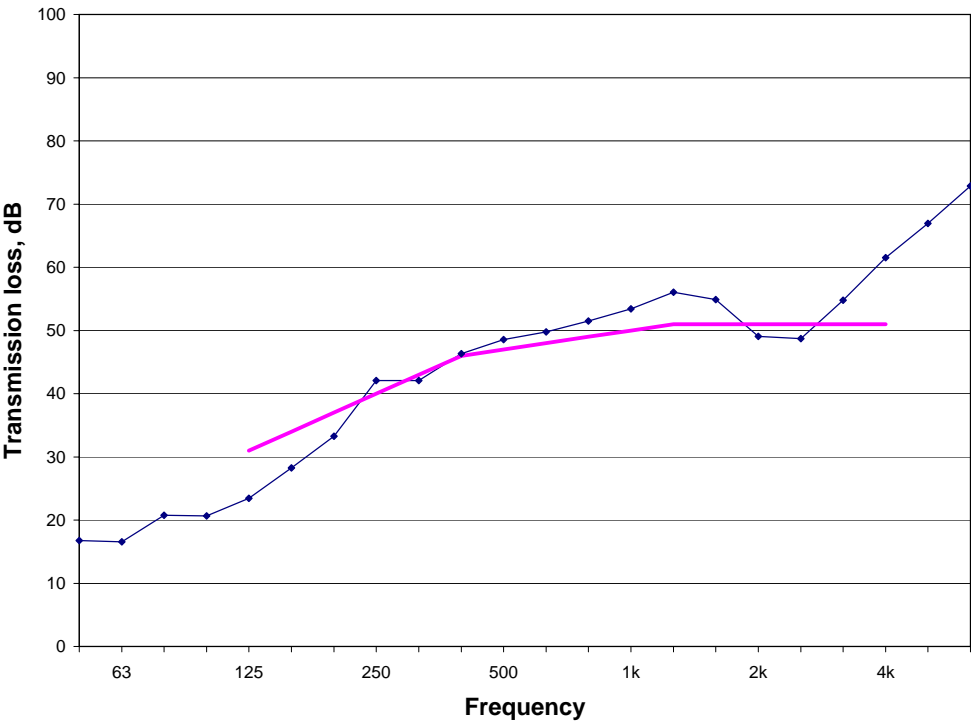
G16\_SWS140(406)\_GFB90\_G16



TestID	TL-93-225
STC	47
50 Hz	16.7
63 Hz	16.5
80 Hz	20.8
100 Hz	20.7
125 Hz	23.4
160 Hz	28.2
200 Hz	33.3
250 Hz	42.1
315 Hz	42.1
400 Hz	46.3
500 Hz	48.5
630 Hz	49.8
800 Hz	51.5
1000 Hz	53.4
1250 Hz	56.1
1600 Hz	54.9
2000 Hz	49.1
2500 Hz	48.7
3150 Hz	54.8
4000 Hz	61.5
5000 Hz	67.0
6300 Hz	72.9

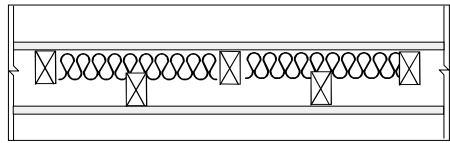
TL-93-225	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	CX	wood	G1	CX
thickness mm	16	90	90	16
plate width		140		
spacing mm		406		
surface density kg/m <sup>2</sup>	11.3		1.1	11.3
linear density kg/m		1.2		
total weight kg	84.3	62.5	11.5	83.9
fastener spacing - edge mm	406			406
fastener spacing - field mm	406			406
fastener top track pattern	c			c
fastener base track pattern	c			c
stud attached to top track		yes		
double header				
orientation	vertical			vertical

TL-93-225  
STC 47



Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	single layer of 16 mm type X gypsum board

G16\_SWS140(406)\_GFB90\_G16

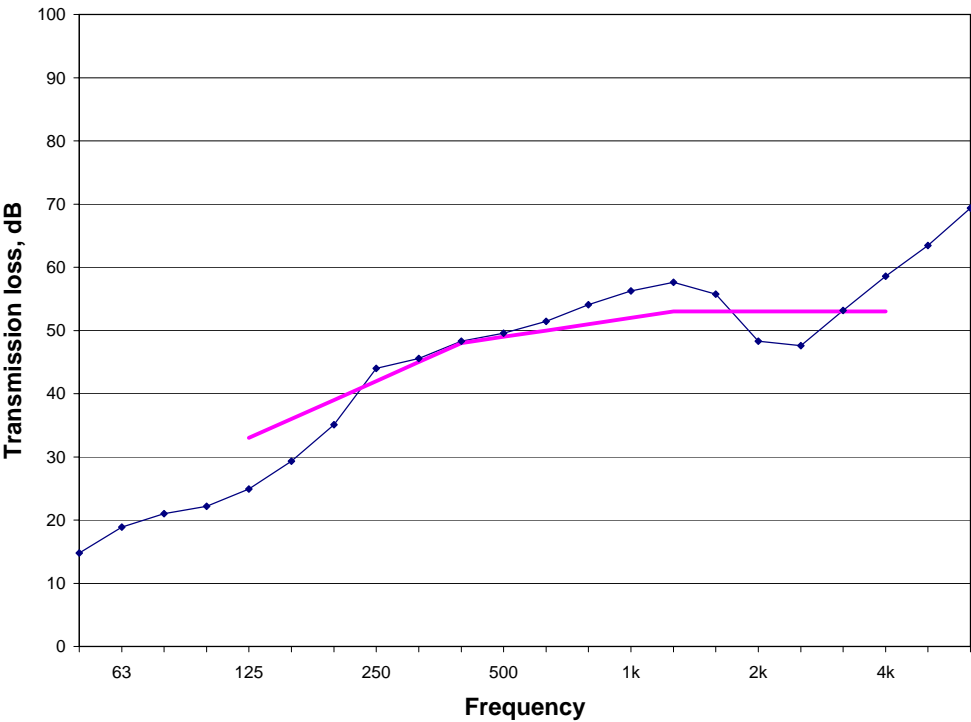


TestID	TL-93-248
STC	49
50 Hz	14.8
63 Hz	18.9
80 Hz	21.0
100 Hz	22.2
125 Hz	24.9
160 Hz	29.3
200 Hz	35.1
250 Hz	44.0
315 Hz	45.6
400 Hz	48.3
500 Hz	49.5
630 Hz	51.4
800 Hz	54.1
1000 Hz	56.3
1250 Hz	57.6
1600 Hz	55.8
2000 Hz	48.3
2500 Hz	47.6
3150 Hz	53.2
4000 Hz	58.6
5000 Hz	63.4
6300 Hz	69.4

TL-93-248

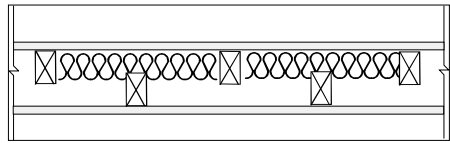
	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	CX	wood	G2	CX
thickness mm	16	90	90	16
plate width		140		
spacing mm		406		
surface density kg/m <sup>2</sup>	11.6		1.5	11.6
linear density kg/m		1.3		
total weight kg	85.9	65.7	10.8	86.0
fastener spacing - edge mm	406			406
fastener spacing - field mm	406			406
fastener top track pattern	c			c
fastener base track pattern	c			c
stud attached to top track		yes		
double header				
orientation	vertical			vertical

TL-93-248  
STC 49



Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	65 mm of mineral fibre insulation in cavity
4	single layer of 16 mm type X gypsum board

G16\_SWS140(406)\_MFB65\_G16

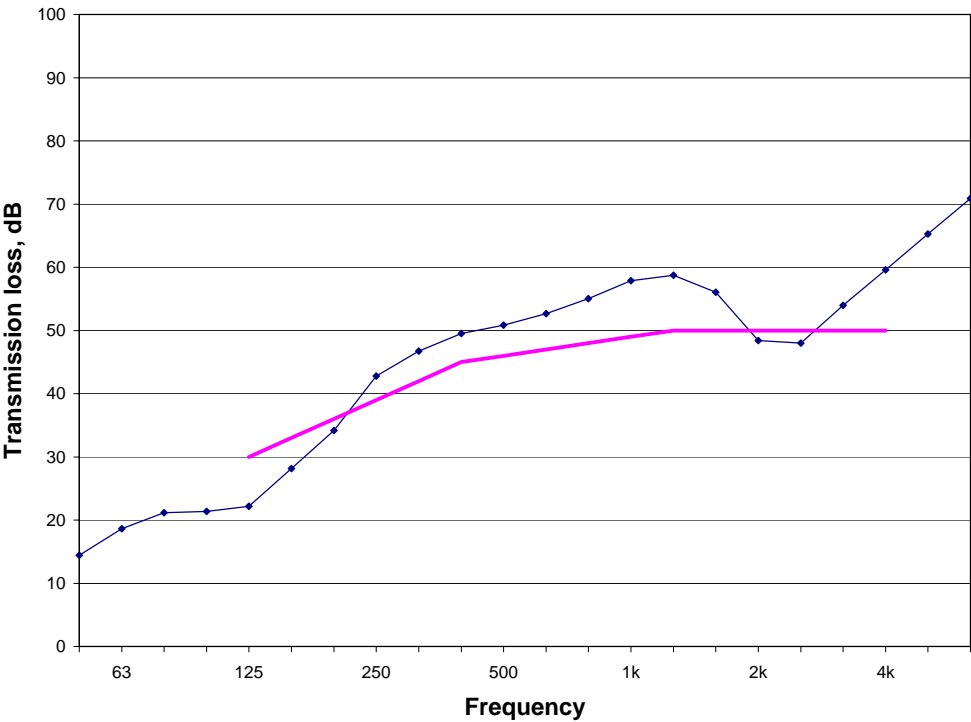


TestID	TL-93-253
STC	46
50 Hz	14.4
63 Hz	18.6
80 Hz	21.2
100 Hz	21.4
125 Hz	22.2
160 Hz	28.2
200 Hz	34.2
250 Hz	42.8
315 Hz	46.7
400 Hz	49.5
500 Hz	50.8
630 Hz	52.7
800 Hz	55.1
1000 Hz	57.9
1250 Hz	58.7
1600 Hz	56.1
2000 Hz	48.4
2500 Hz	48.0
3150 Hz	54.0
4000 Hz	59.6
5000 Hz	65.3
6300 Hz	70.9

TL-93-253

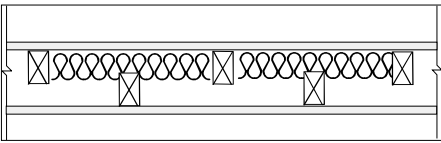
	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	CX	wood	M1	CX
thickness mm	16	90	65	16
plate width		140		
spacing mm		406		
surface density kg/m <sup>2</sup>	11.6		2.2	11.6
linear density kg/m		1.3		
total weight kg	86.2	65.7	16.7	86.0
fastener spacing - edge mm	406			406
fastener spacing - field mm	406			406
fastener top track pattern	c			c
fastener base track pattern	c			c
stud attached to top track		yes		
double header				
orientation	vertical			vertical

TL-93-253  
STC 46



Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm wood studs at 610 mm on centre
3	130 mm of glass fibre insulation in cavity
4	single layer of 16 mm type X gypsum board

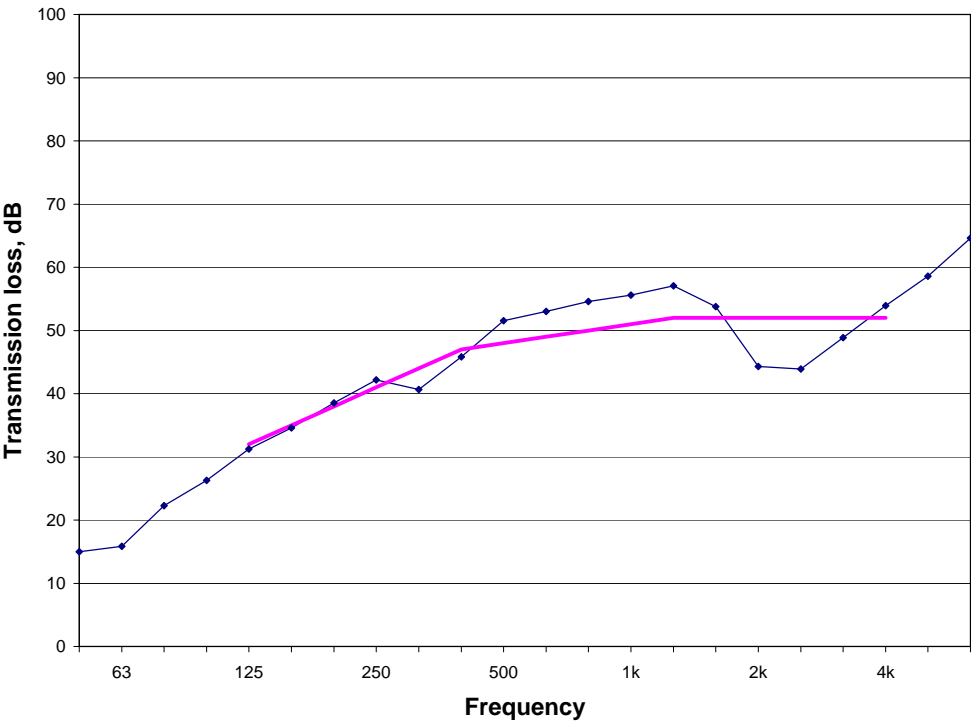
G16\_SWS140(610)\_GFB65\_GFB65\_G16



TestID	TL-93-255
STC	48
50 Hz	15.0
63 Hz	15.9
80 Hz	22.3
100 Hz	26.3
125 Hz	31.2
160 Hz	34.6
200 Hz	38.5
250 Hz	42.2
315 Hz	40.7
400 Hz	45.8
500 Hz	51.6
630 Hz	53.0
800 Hz	54.6
1000 Hz	55.6
1250 Hz	57.1
1600 Hz	53.8
2000 Hz	44.3
2500 Hz	43.9
3150 Hz	48.9
4000 Hz	53.9
5000 Hz	58.6
6300 Hz	64.6

TL-93-255	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	CX	wood	G1	CX
thickness mm	16	90	130	16
plate width		140		
spacing mm		610		
surface density kg/m <sup>2</sup>	11.6		1.4	11.6
linear density kg/m		1.5		
total weight kg	86.0	52.0	10.6	86.1
fastener spacing - edge mm	305			305
fastener spacing - field mm	305			305
fastener top track pattern	a			a
fastener base track pattern	a			a
stud attached to top track		yes		
double header				
orientation	vertical			vertical

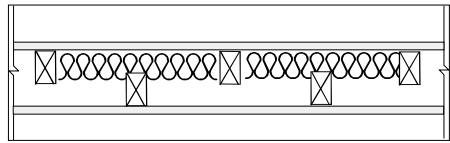
TL-93-255  
STC 48





Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm wood studs at 610 mm on centre
3	90 mm of glass fibre insulation in cavity
4	single layer of 16 mm type X gypsum board

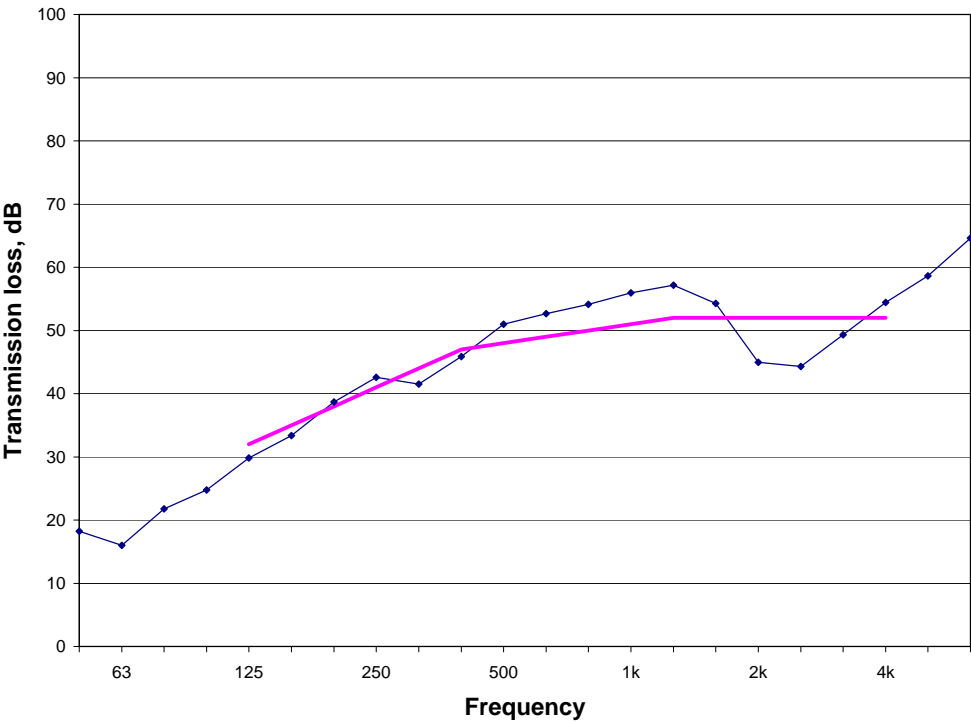
G16\_SWS140(610)\_GFB90\_G16



TestID	TL-93-256
STC	48
50 Hz	18.2
63 Hz	16.0
80 Hz	21.8
100 Hz	24.7
125 Hz	29.8
160 Hz	33.4
200 Hz	38.7
250 Hz	42.6
315 Hz	41.5
400 Hz	45.9
500 Hz	51.0
630 Hz	52.6
800 Hz	54.1
1000 Hz	56.0
1250 Hz	57.2
1600 Hz	54.3
2000 Hz	45.0
2500 Hz	44.3
3150 Hz	49.3
4000 Hz	54.4
5000 Hz	58.6
6300 Hz	64.6

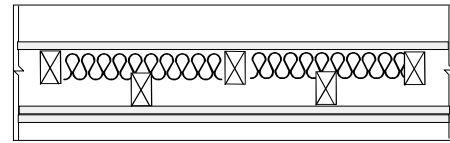
TL-93-256	element 1	element 2	element 3	element 4
type	gypsum board	stud	insulation	gypsum board
material	CX	wood	G1	CX
thickness mm	16	90	90	16
plate width		140		
spacing mm		610		
surface density kg/m <sup>2</sup>	11.7		1.1	11.6
linear density kg/m		1.5		
total weight kg	86.7	52.0	9.8	86.1
fastener spacing - edge mm	305			305
fastener spacing - field mm	305			305
fastener top track pattern	a			a
fastener base track pattern	a			a
stud attached to top track		yes		
double header				
orientation	vertical			vertical

TL-93-256  
STC 48



G13\_SWS140(406)\_GFB65\_2G13

Element	Description:
1	single layer of 13 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	65 mm of glass fibre insulation in cavity
4	single layer of 13 mm type X gypsum board
5	single layer of 13 mm type X gypsum board

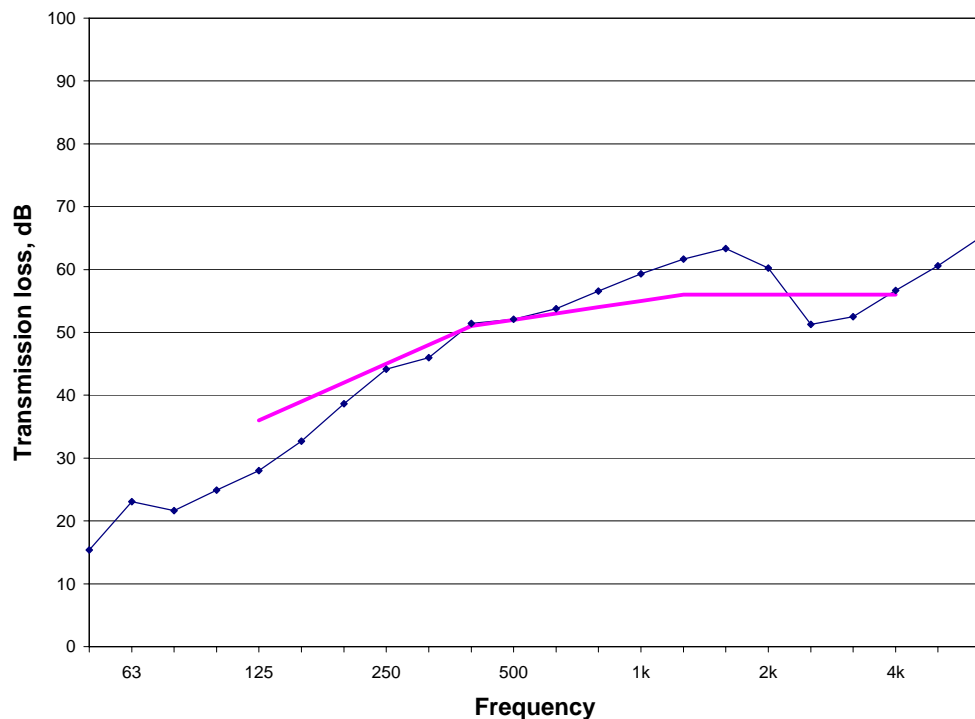


TestID	TL-93-440
STC	52
50 Hz	15.4
63 Hz	23.0
80 Hz	21.6
100 Hz	24.9
125 Hz	28.0
160 Hz	32.7
200 Hz	38.6
250 Hz	44.1
315 Hz	46.0
400 Hz	51.4
500 Hz	52.1
630 Hz	53.8
800 Hz	56.6
1000 Hz	59.3
1250 Hz	61.7
1600 Hz	63.4
2000 Hz	60.2
2500 Hz	51.3
3150 Hz	52.5
4000 Hz	56.7
5000 Hz	60.6
6300 Hz	65.1

TL-93-440

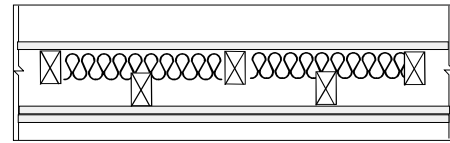
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	gypsum board	gypsum board
material	AX	wood	G1	AX	AX
thickness mm	13	90	65	13	13
plate width		140			
spacing mm		406			
surface density kg/m <sup>2</sup>	10.3		0.8	10.5	10.4
linear density kg/m		1.4			
total weight kg	76.4	69.7	5.3	77.9	77.0
fastener spacing - edge mm	406			610	406
fastener spacing - field mm	406			610	406
fastener top track pattern	c			c	c
fastener base track pattern	c			c	c
stud attached to top track		yes			
double header					
orientation	vertical			vertical	vertical

TL-93-440  
STC 52



G13\_SWS140(406)\_GFB65\_GFB65\_2G13

Element	Description:
1	single layer of 13 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	130 mm of glass fibre insulation in cavity
4	single layer of 13 mm type X gypsum board
5	single layer of 13 mm type X gypsum board

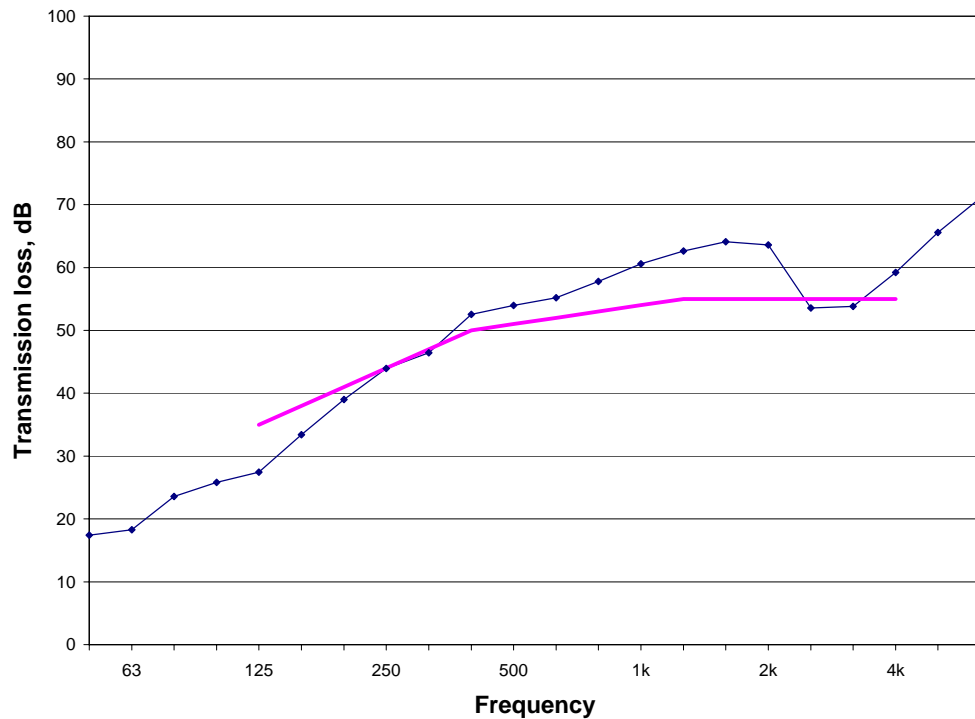


TestID	TL-93-201
STC	51
50 Hz	17.4
63 Hz	18.3
80 Hz	23.6
100 Hz	25.8
125 Hz	27.5
160 Hz	33.4
200 Hz	39.0
250 Hz	44.0
315 Hz	46.5
400 Hz	52.5
500 Hz	54.0
630 Hz	55.2
800 Hz	57.8
1000 Hz	60.6
1250 Hz	62.6
1600 Hz	64.1
2000 Hz	63.6
2500 Hz	53.6
3150 Hz	53.8
4000 Hz	59.2
5000 Hz	65.6
6300 Hz	71.1

TL-93-201

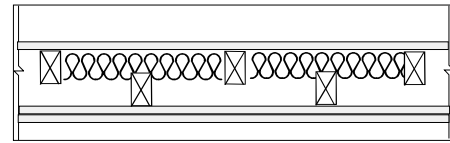
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	gypsum board	gypsum board
material	AX	wood	G1	AX	AX
thickness mm	13	90	130	13	13
plate width		140			
spacing mm		406			
surface density kg/m <sup>2</sup>	10.0		1.4	10.0	9.9
linear density kg/m		1.2			
total weight kg	74.6	62.5	10.4	74.3	73.7
fastener spacing - edge mm	406			610	406
fastener spacing - field mm	406			610	406
fastener top track pattern	c			c	c
fastener base track pattern	c			c	c
stud attached to top track		yes			
double header					
orientation	vertical			vertical	vertical

TL-93-201  
STC 51



G13\_SWS140(406)\_GFB90\_2G13

Element	Description:
1	single layer of 13 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	single layer of 13 mm type X gypsum board
5	single layer of 13 mm type X gypsum board

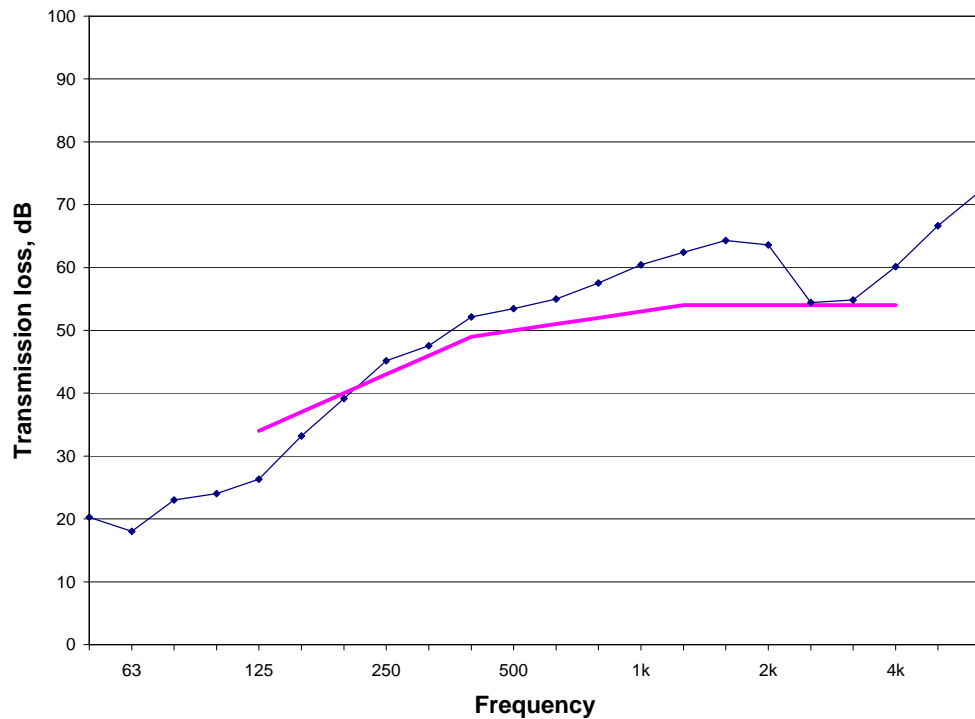


TestID	TL-93-209
STC	50
50 Hz	20.2
63 Hz	18.0
80 Hz	23.0
100 Hz	24.1
125 Hz	26.3
160 Hz	33.2
200 Hz	39.1
250 Hz	45.2
315 Hz	47.6
400 Hz	52.2
500 Hz	53.5
630 Hz	55.0
800 Hz	57.5
1000 Hz	60.4
1250 Hz	62.4
1600 Hz	64.3
2000 Hz	63.6
2500 Hz	54.4
3150 Hz	54.8
4000 Hz	60.1
5000 Hz	66.7
6300 Hz	72.2

TL-93-209

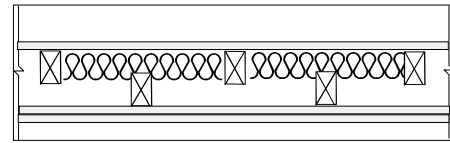
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	gypsum board	gypsum board
material	AX	wood	G1	AX	AX
thickness mm	13	90	90	13	13
plate width		140			
spacing mm		406			
surface density kg/m <sup>2</sup>	9.9		1.1	10.1	10.1
linear density kg/m		1.2			
total weight kg	73.9	62.5	11.5	74.7	75.1
fastener spacing - edge mm	406			610	406
fastener spacing - field mm	406			610	406
fastener top track pattern	c			c	c
fastener base track pattern	c			c	c
stud attached to top track		yes			
double header					
orientation	vertical			vertical	vertical

TL-93-209  
STC 50



G13\_SWS140(406)\_GFB90\_2G13

Element	Description:
1	single layer of 13 mm gypsum board
2	90 mm wood studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	single layer of 13 mm gypsum board
5	single layer of 13 mm gypsum board

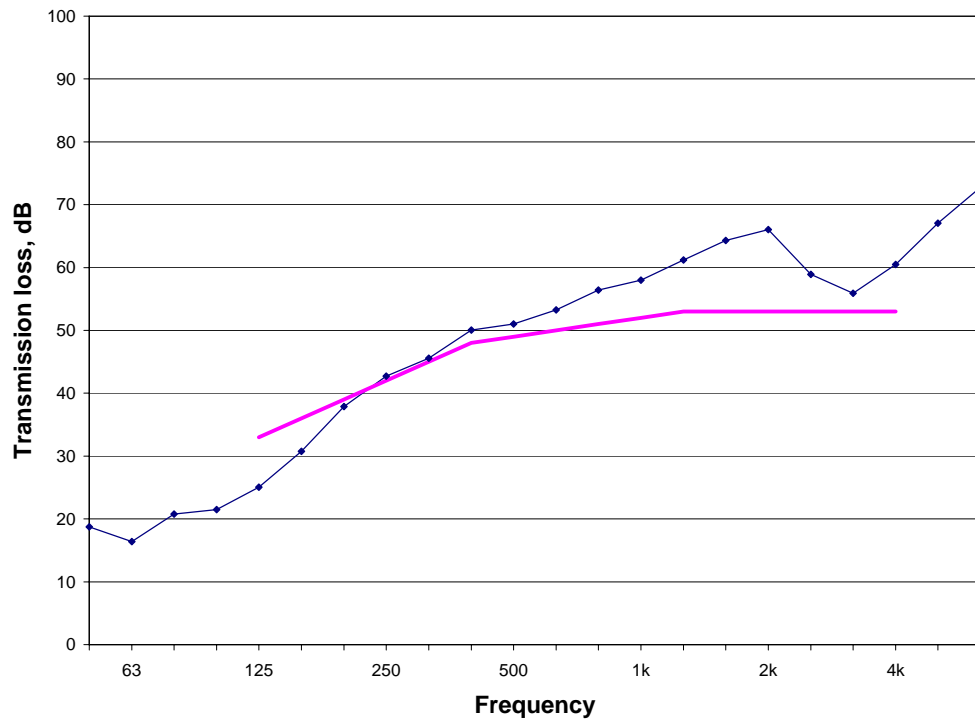


TestID	TL-93-229
STC	49
50 Hz	18.7
63 Hz	16.4
80 Hz	20.8
100 Hz	21.5
125 Hz	25.1
160 Hz	30.7
200 Hz	37.9
250 Hz	42.7
315 Hz	45.6
400 Hz	50.0
500 Hz	51.0
630 Hz	53.3
800 Hz	56.4
1000 Hz	58.0
1250 Hz	61.2
1600 Hz	64.3
2000 Hz	66.0
2500 Hz	58.9
3150 Hz	55.9
4000 Hz	60.5
5000 Hz	67.0
6300 Hz	72.8

TL-93-229

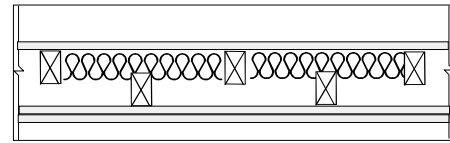
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	gypsum board	gypsum board
material	B	wood	G1	B	B
thickness mm	13	90	90	13	13
plate width		140			
spacing mm		406			
surface density kg/m <sup>2</sup>	8.2		1.1	8.3	8.3
linear density kg/m		1.2			
total weight kg	61.2	62.5	11.5	61.7	62.0
fastener spacing - edge mm	406			610	406
fastener spacing - field mm	406			610	406
fastener top track pattern	c			c	c
fastener base track pattern	c			c	c
stud attached to top track		yes			
double header					
orientation	vertical			vertical	vertical

TL-93-229  
STC 49



G13\_SWS140(406)\_GFB90\_2G13

Element	Description:
1	single layer of 13 mm gypsum board
2	90 mm wood studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	single layer of 13 mm gypsum board
5	single layer of 13 mm gypsum board

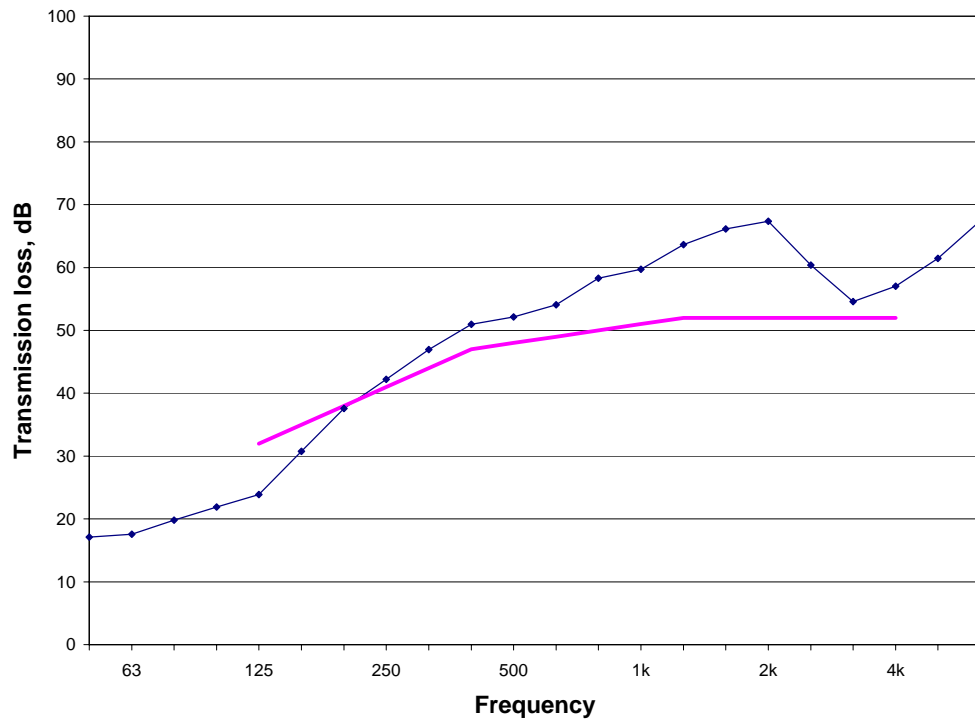


TestID	TL-93-435
STC	48
50 Hz	17.1
63 Hz	17.6
80 Hz	19.8
100 Hz	21.9
125 Hz	23.9
160 Hz	30.7
200 Hz	37.6
250 Hz	42.2
315 Hz	46.9
400 Hz	50.9
500 Hz	52.1
630 Hz	54.1
800 Hz	58.3
1000 Hz	59.7
1250 Hz	63.6
1600 Hz	66.2
2000 Hz	67.4
2500 Hz	60.4
3150 Hz	54.6
4000 Hz	57.0
5000 Hz	61.5
6300 Hz	67.4

TL-93-435

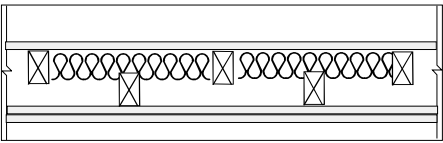
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	gypsum board	gypsum board
material	BL	wood	G1	BL	BL
thickness mm	13	90	90	13	13
plate width		140			
spacing mm		406			
surface density kg/m <sup>2</sup>	7.3		1.1	7.2	7.3
linear density kg/m		1.4			
total weight kg	54.5	69.7	7.8	53.8	53.9
fastener spacing - edge mm	406			610	406
fastener spacing - field mm	406			610	406
fastener top track pattern	c			c	c
fastener base track pattern	c			c	c
stud attached to top track		yes			
double header					
orientation	vertical			vertical	vertical

TL-93-435  
STC 48



G16\_SWS140(406)\_CFL140\_2G16

Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	140 mm of blown cellulose fibre insulation in cavity
4	single layer of 16 mm type X gypsum board
5	single layer of 16 mm type X gypsum board

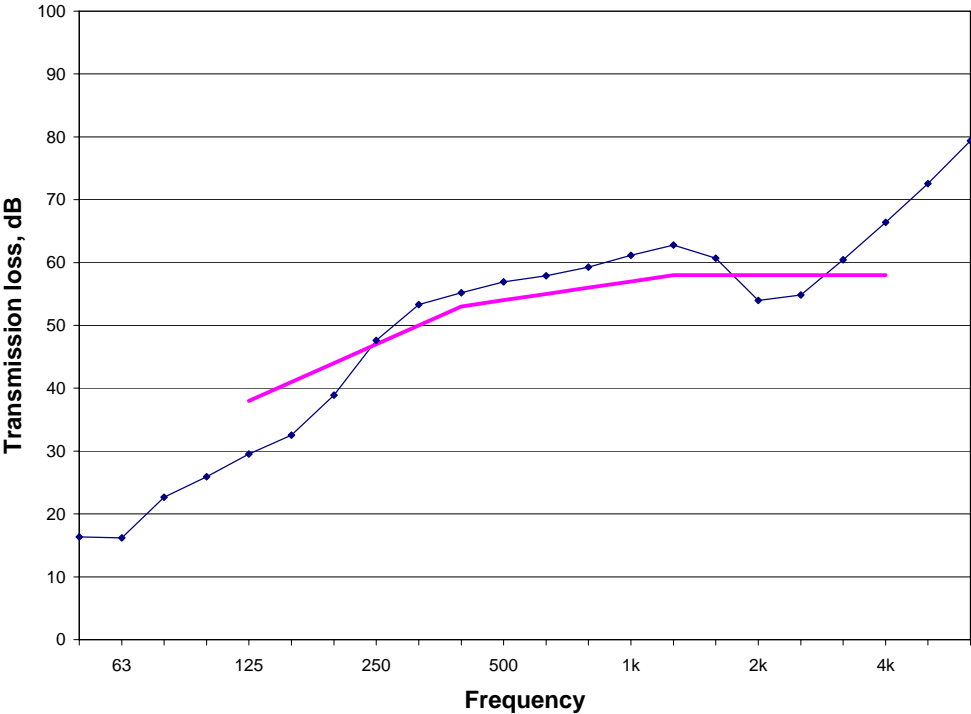


TestID	TL-93-232
STC	54
50 Hz	16.3
63 Hz	16.2
80 Hz	22.6
100 Hz	25.9
125 Hz	29.5
160 Hz	32.6
200 Hz	38.9
250 Hz	47.6
315 Hz	53.3
400 Hz	55.2
500 Hz	56.9
630 Hz	57.9
800 Hz	59.3
1000 Hz	61.2
1250 Hz	62.8
1600 Hz	60.7
2000 Hz	54.0
2500 Hz	54.8
3150 Hz	60.4
4000 Hz	66.4
5000 Hz	72.6
6300 Hz	79.4

TL-93-232

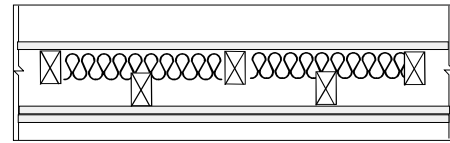
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	gypsum board	gypsum board
material	CX	wood	C2	CX	CX
thickness mm	16	90	140	16	16
plate width		140			
spacing mm		406			
surface density kg/m <sup>2</sup>	11.5		7.0	11.4	11.3
linear density kg/m		1.2			
total weight kg	85.2	62.5	51.8	84.8	84.0
fastener spacing - edge mm	406			610	406
fastener spacing - field mm	406			610	406
fastener top track pattern	c			c	c
fastener base track pattern	c			c	c
stud attached to top track		yes			
double header					
orientation	vertical			vertical	vertical

TL-93-232  
STC 54



G16\_SWS140(406)\_CFS40\_2G16

Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	40 mm of sprayed cellulose fibre insulation in cavity
4	single layer of 16 mm type X gypsum board
5	single layer of 16 mm type X gypsum board

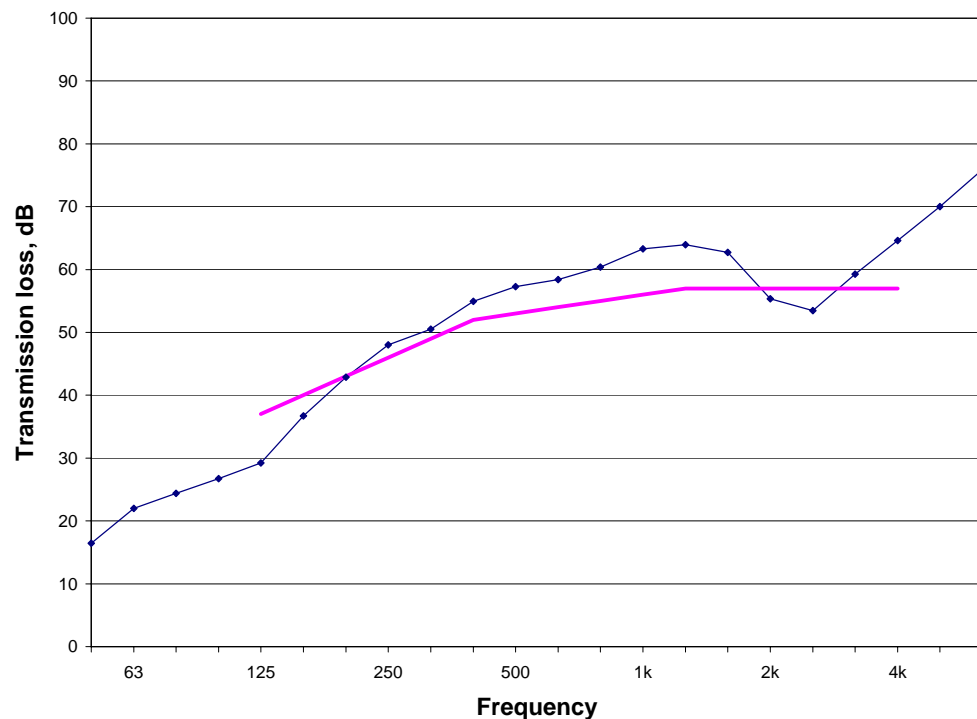


TestID	TL-93-243
STC	53
50 Hz	16.4
63 Hz	22.0
80 Hz	24.4
100 Hz	26.8
125 Hz	29.2
160 Hz	36.7
200 Hz	42.9
250 Hz	48.0
315 Hz	50.5
400 Hz	54.9
500 Hz	57.3
630 Hz	58.4
800 Hz	60.4
1000 Hz	63.3
1250 Hz	64.0
1600 Hz	62.7
2000 Hz	55.4
2500 Hz	53.5
3150 Hz	59.3
4000 Hz	64.6
5000 Hz	70.0
6300 Hz	75.9

TL-93-243

	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	gypsum board	gypsum board
material	CX	wood	C1	CX	CX
thickness mm	16	90	40	16	16
plate width		140			
spacing mm		406			
surface density kg/m <sup>2</sup>	11.4		11.5	11.3	11.3
linear density kg/m		1.3			
total weight kg	84.4	65.7	21.0	84.2	83.8
fastener spacing - edge mm	406			610	406
fastener spacing - field mm	406			610	406
fastener top track pattern	c			c	c
fastener base track pattern	c			c	c
stud attached to top track		yes			
double header					
orientation	vertical			vertical	vertical

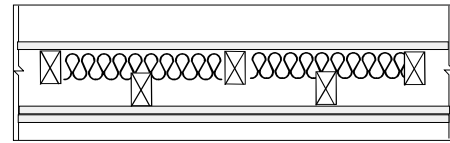
TL-93-243  
STC 53





G16\_SWS140(406)\_GFB65\_GFB65\_2G16

Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	130 mm of glass fibre insulation in cavity
4	single layer of 16 mm type X gypsum board
5	single layer of 16 mm type X gypsum board

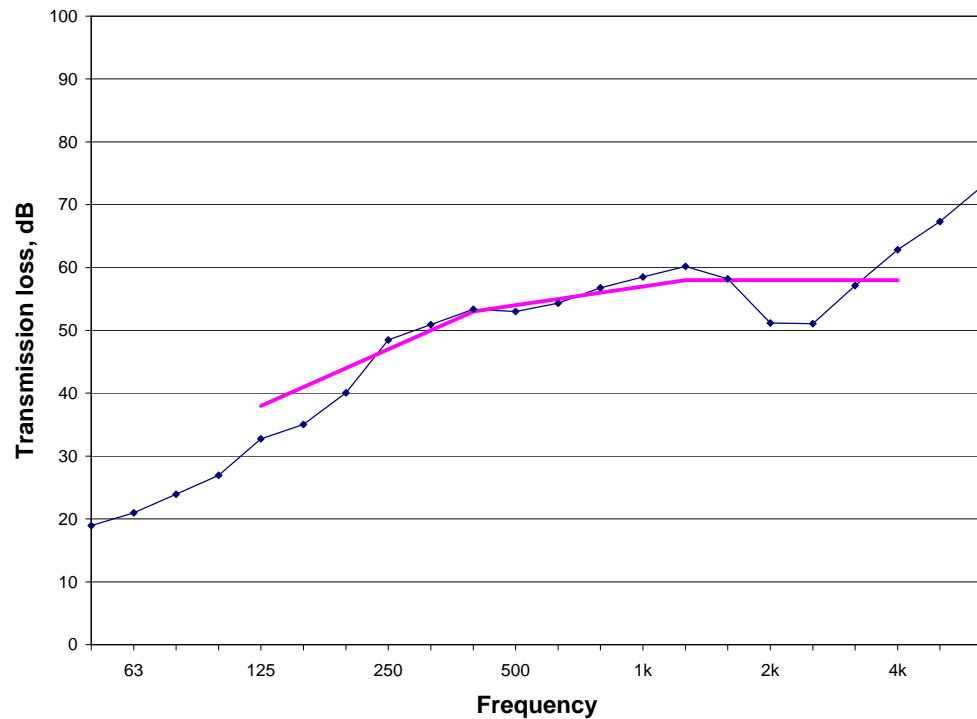


TestID	TL-93-250
STC	54
50 Hz	19.0
63 Hz	21.0
80 Hz	23.9
100 Hz	26.9
125 Hz	32.7
160 Hz	35.0
200 Hz	40.1
250 Hz	48.5
315 Hz	50.9
400 Hz	53.3
500 Hz	53.0
630 Hz	54.3
800 Hz	56.8
1000 Hz	58.5
1250 Hz	60.2
1600 Hz	58.2
2000 Hz	51.2
2500 Hz	51.1
3150 Hz	57.2
4000 Hz	62.8
5000 Hz	67.3
6300 Hz	72.9

TL-93-250

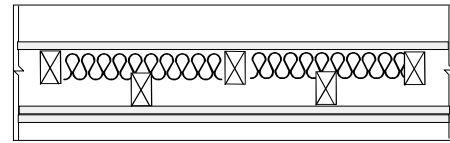
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	gypsum board	gypsum board
material	CX	wood	G1	CX	CX
thickness mm	16	90	130	16	16
plate width		140			
spacing mm		406			
surface density kg/m <sup>2</sup>	11.8		1.6	11.6	11.5
linear density kg/m		1.3			
total weight kg	87.5	65.7	11.4	86.0	85.1
fastener spacing - edge mm	406			610	406
fastener spacing - field mm	406			610	406
fastener top track pattern	c			c	c
fastener base track pattern	c			c	c
stud attached to top track		yes			
double header					
orientation	vertical			vertical	vertical

TL-93-250  
STC 54



G16\_SWS140(406)\_GFB90\_2G16

Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	single layer of 16 mm type X gypsum board
5	single layer of 16 mm type X gypsum board

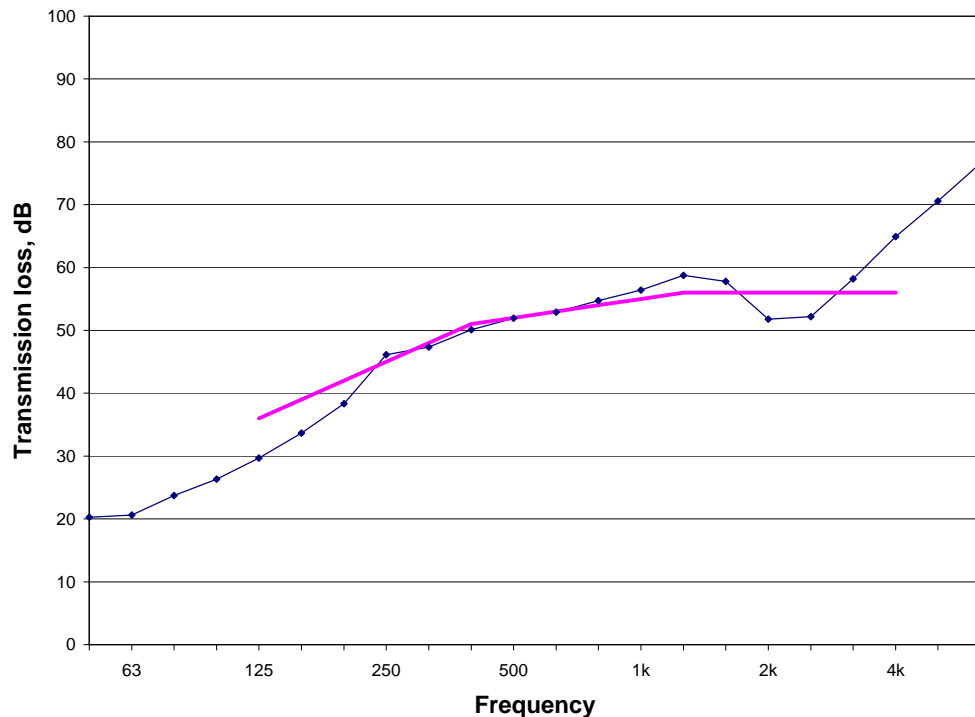


TestID	TL-93-226
STC	52
50 Hz	20.3
63 Hz	20.6
80 Hz	23.7
100 Hz	26.3
125 Hz	29.7
160 Hz	33.7
200 Hz	38.3
250 Hz	46.1
315 Hz	47.3
400 Hz	50.1
500 Hz	51.9
630 Hz	52.9
800 Hz	54.7
1000 Hz	56.4
1250 Hz	58.8
1600 Hz	57.8
2000 Hz	51.8
2500 Hz	52.2
3150 Hz	58.2
4000 Hz	64.9
5000 Hz	70.6
6300 Hz	76.6

TL-93-226

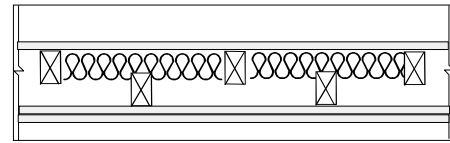
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	gypsum board	gypsum board
material	CX	wood	G1	CX	CX
thickness mm	16	90	90	16	16
plate width		140			
spacing mm		406			
surface density kg/m <sup>2</sup>	11.3		1.1	11.3	11.2
linear density kg/m		1.2			
total weight kg	84.3	62.5	11.5	83.9	83.5
fastener spacing - edge mm	406			610	406
fastener spacing - field mm	406			610	406
fastener top track pattern	c			c	c
fastener base track pattern	c			c	c
stud attached to top track		yes			
double header					
orientation	vertical			vertical	vertical

TL-93-226  
STC 52



G16\_SWS140(406)\_MFB65\_2G16

Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	65 mm of mineral fibre insulation in cavity
4	single layer of 16 mm type X gypsum board
5	single layer of 16 mm type X gypsum board

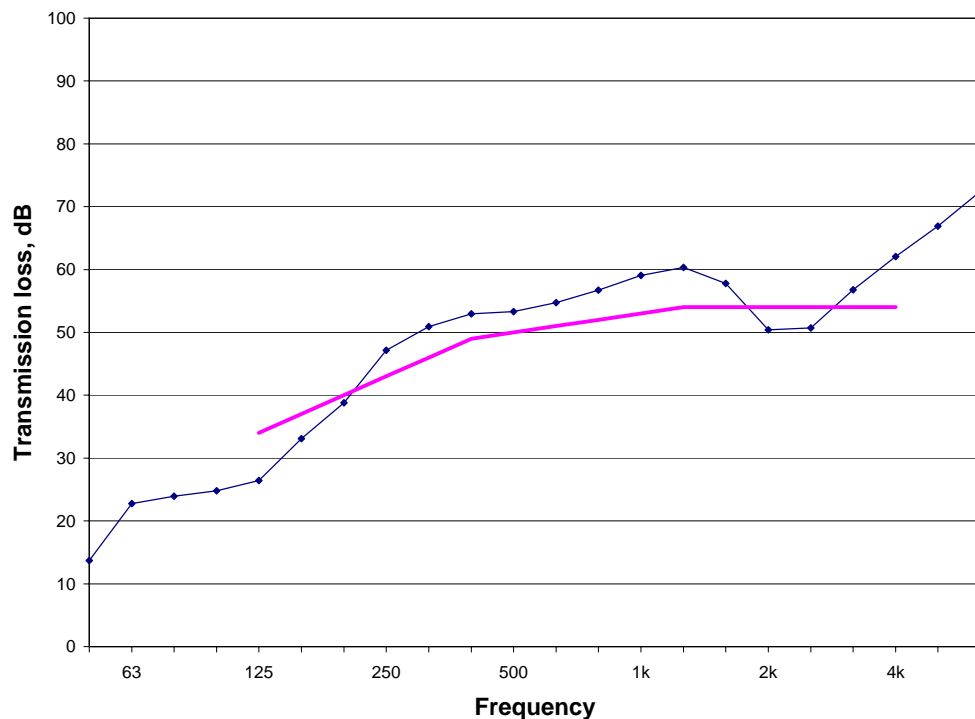


TestID	TL-93-252
STC	50
50 Hz	13.7
63 Hz	22.8
80 Hz	23.9
100 Hz	24.8
125 Hz	26.4
160 Hz	33.1
200 Hz	38.8
250 Hz	47.2
315 Hz	50.9
400 Hz	52.9
500 Hz	53.3
630 Hz	54.7
800 Hz	56.7
1000 Hz	59.0
1250 Hz	60.3
1600 Hz	57.8
2000 Hz	50.4
2500 Hz	50.7
3150 Hz	56.8
4000 Hz	62.1
5000 Hz	66.9
6300 Hz	72.5

TL-93-252

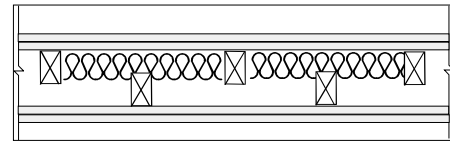
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	gypsum board	gypsum board
material	CX	wood	M1	CX	CX
thickness mm	16	90	65	16	16
plate width		140			
spacing mm		406			
surface density kg/m <sup>2</sup>	11.6		2.2	11.6	11.5
linear density kg/m		1.3			
total weight kg	86.2	65.7	16.7	86.0	85.1
fastener spacing - edge mm	406			610	406
fastener spacing - field mm	406			610	406
fastener top track pattern	c			c	c
fastener base track pattern	c			c	c
stud attached to top track		yes			
double header					
orientation	vertical			vertical	vertical

TL-93-252  
STC 50



2G13\_SWS140(406)\_GFB65\_GFB65\_2G13

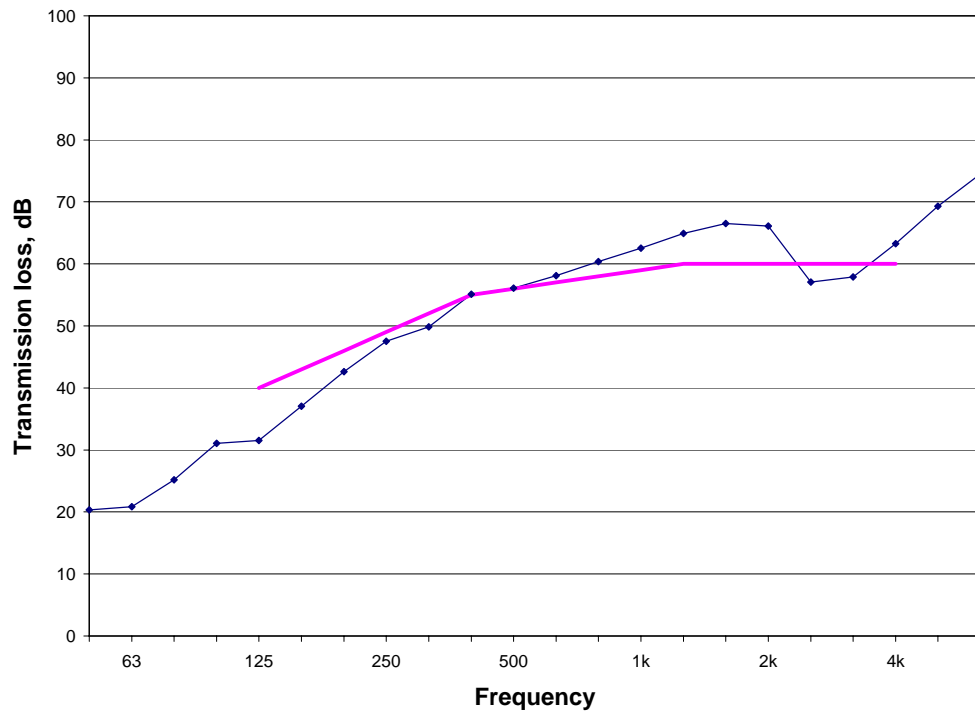
Element	Description:
1	single layer of 13 mm type X gypsum board
2	single layer of 13 mm type X gypsum board
3	90 mm wood studs at 406 mm on centre
4	130 mm of glass fibre insulation in cavity
5	single layer of 13 mm type X gypsum board
6	single layer of 13 mm type X gypsum board



TestID	TL-93-202
STC	56
50 Hz	20.3
63 Hz	20.8
80 Hz	25.2
100 Hz	31.1
125 Hz	31.5
160 Hz	37.1
200 Hz	42.6
250 Hz	47.5
315 Hz	49.9
400 Hz	55.1
500 Hz	56.1
630 Hz	58.1
800 Hz	60.4
1000 Hz	62.5
1250 Hz	64.9
1600 Hz	66.5
2000 Hz	66.1
2500 Hz	57.1
3150 Hz	57.9
4000 Hz	63.3
5000 Hz	69.3
6300 Hz	74.5

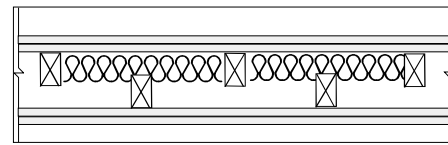
TL-93-202	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	gypsum board	stud	insulation	gypsum board	gypsum board
material	AX	AX	wood	G1	AX	AX
thickness mm	13	13	90	130	13	13
plate width			140			
spacing mm			406			
surface density kg/m <sup>2</sup>	10.0	10.0		1.4	10.0	9.9
linear density kg/m			1.2			
total weight kg	74.3	74.6	62.5	10.4	74.3	73.7
fastener spacing - edge mm	406	610			610	406
fastener spacing - field mm	406	610			610	406
fastener top track pattern	c	c			c	c
fastener base track pattern	c	c			c	c
stud attached to top track			yes			
double header						
orientation	vertical	vertical			vertical	vertical

TL-93-202  
STC 56



2G13\_SWS140(406)\_GFB90\_2G13

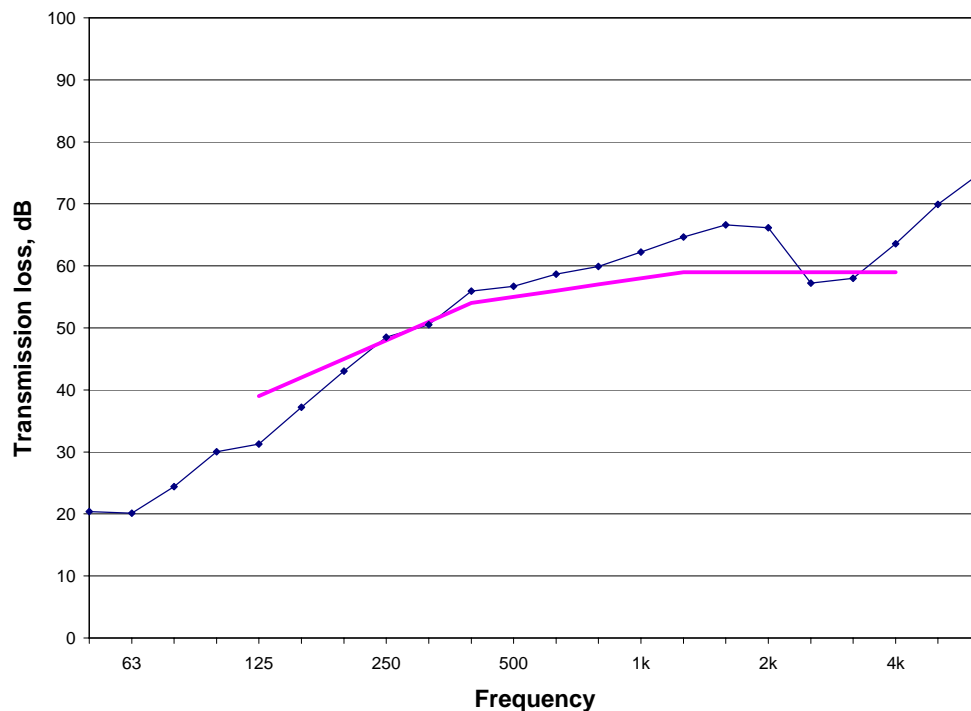
Element	Description:
1	single layer of 13 mm type X gypsum board
2	single layer of 13 mm type X gypsum board
3	90 mm wood studs at 406 mm on centre
4	90 mm of glass fibre insulation in cavity
5	single layer of 13 mm type X gypsum board
6	single layer of 13 mm type X gypsum board



TestID	TL-93-210
STC	55
50 Hz	20.4
63 Hz	20.1
80 Hz	24.4
100 Hz	30.0
125 Hz	31.3
160 Hz	37.2
200 Hz	43.0
250 Hz	48.5
315 Hz	50.5
400 Hz	55.9
500 Hz	56.7
630 Hz	58.7
800 Hz	59.9
1000 Hz	62.2
1250 Hz	64.7
1600 Hz	66.6
2000 Hz	66.1
2500 Hz	57.2
3150 Hz	58.0
4000 Hz	63.6
5000 Hz	69.9
6300 Hz	75.0

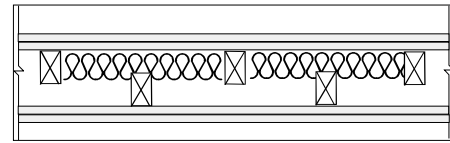
TL-93-210	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	gypsum board	stud	insulation	gypsum board	gypsum board
material	AX	AX	wood	G1	AX	AX
thickness mm	13	13	90	90	13	13
plate width			140			
spacing mm			406			
surface density kg/m <sup>2</sup>	10.0	9.9		1.1	10.1	10.1
linear density kg/m			1.2			
total weight kg	74.2	73.9	62.5	11.5	74.7	75.1
fastener spacing - edge mm	406	610			610	406
fastener spacing - field mm	406	610			610	406
fastener top track pattern	c	c			c	c
fastener base track pattern	c	c			c	c
stud attached to top track			yes			
double header						
orientation	vertical	vertical			vertical	vertical

TL-93-210  
STC 55



2G13\_SWS140(406)\_GFB90\_2G13

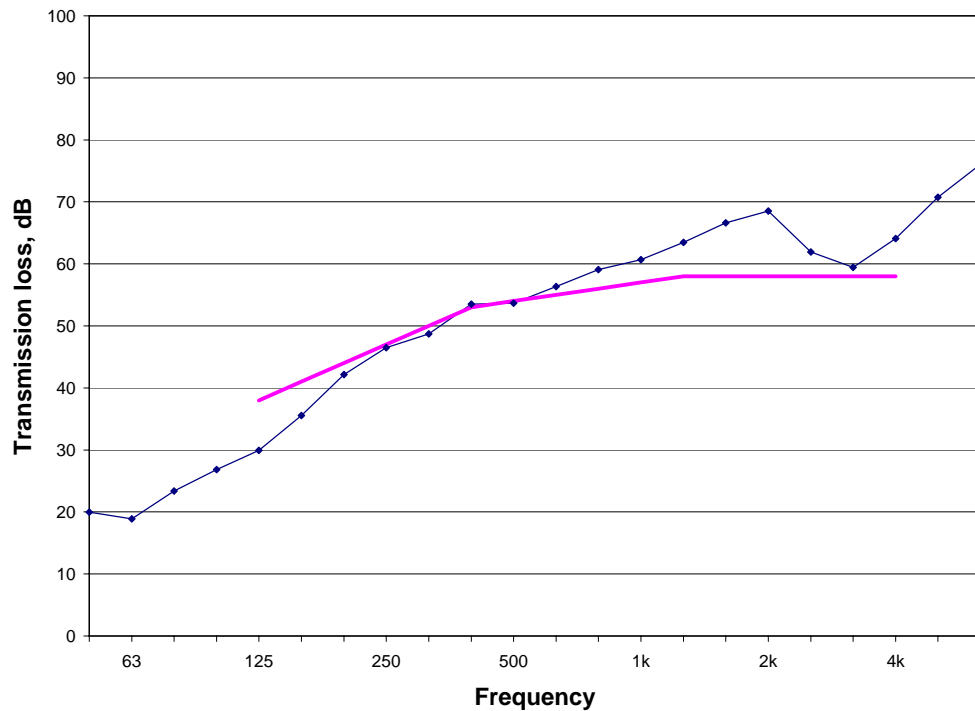
Element	Description:
1	single layer of 13 mm gypsum board
2	single layer of 13 mm gypsum board
3	90 mm wood studs at 406 mm on centre
4	90 mm of glass fibre insulation in cavity
5	single layer of 13 mm gypsum board
6	single layer of 13 mm gypsum board



TestID	TL-93-230
STC	54
50 Hz	20.0
63 Hz	18.9
80 Hz	23.4
100 Hz	26.8
125 Hz	29.9
160 Hz	35.5
200 Hz	42.2
250 Hz	46.5
315 Hz	48.7
400 Hz	53.5
500 Hz	53.7
630 Hz	56.3
800 Hz	59.1
1000 Hz	60.7
1250 Hz	63.5
1600 Hz	66.6
2000 Hz	68.5
2500 Hz	61.9
3150 Hz	59.4
4000 Hz	64.1
5000 Hz	70.7
6300 Hz	76.1

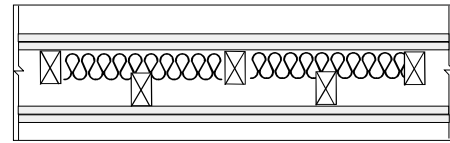
TL-93-230	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	gypsum board	stud	insulation	gypsum board	gypsum board
material	B	B	wood	G1	B	B
thickness mm	13	13	90	90	13	13
plate width			140			
spacing mm			406			
surface density kg/m <sup>2</sup>	8.2	8.2		1.1	8.3	8.3
linear density kg/m			1.2			
total weight kg	61.1	61.2	62.5	11.5	61.7	62.0
fastener spacing - edge mm	406	610			610	406
fastener spacing - field mm	406	610			610	406
fastener top track pattern	c	c			c	c
fastener base track pattern	c	c			c	c
stud attached to top track			yes			
double header						
orientation	vertical	vertical			vertical	vertical

TL-93-230  
STC 54



2G13\_SWS140(406)\_GFB90\_2G13

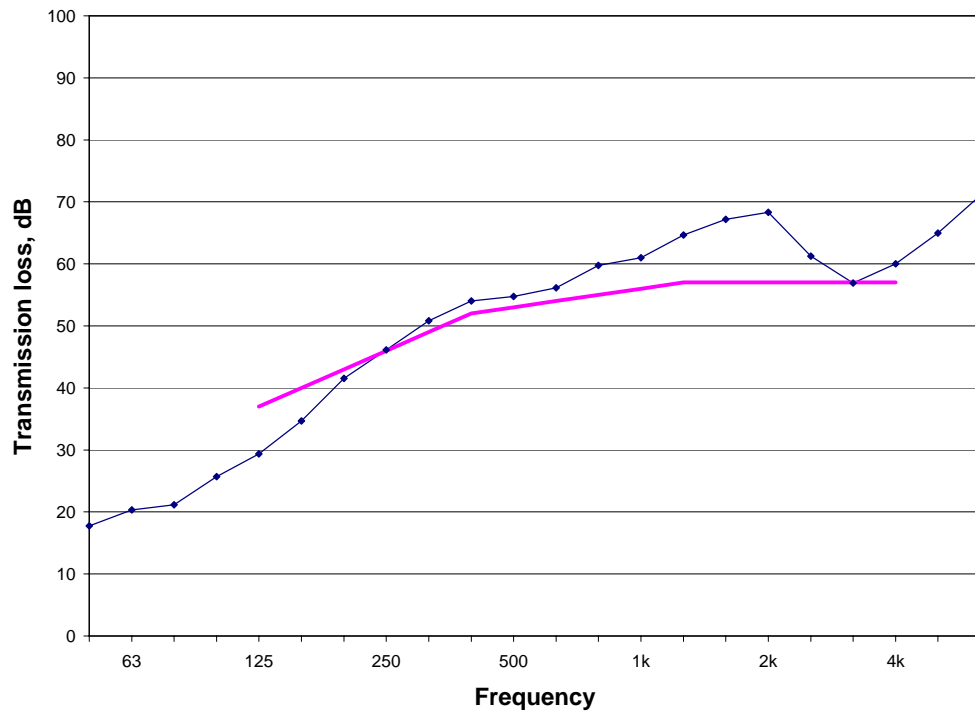
Element	Description:
1	single layer of 13 mm gypsum board
2	single layer of 13 mm gypsum board
3	90 mm wood studs at 406 mm on centre
4	90 mm of glass fibre insulation in cavity
5	single layer of 13 mm gypsum board
6	single layer of 13 mm gypsum board



TestID	TL-93-436
STC	53
50 Hz	17.7
63 Hz	20.3
80 Hz	21.1
100 Hz	25.7
125 Hz	29.4
160 Hz	34.7
200 Hz	41.6
250 Hz	46.1
315 Hz	50.8
400 Hz	54.0
500 Hz	54.8
630 Hz	56.1
800 Hz	59.8
1000 Hz	61.0
1250 Hz	64.7
1600 Hz	67.2
2000 Hz	68.3
2500 Hz	61.2
3150 Hz	56.9
4000 Hz	60.0
5000 Hz	65.0
6300 Hz	71.0

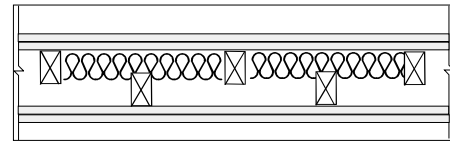
TL-93-436	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	gypsum board	stud	insulation	gypsum board	gypsum board
material	BL	BL	wood	G1	BL	BL
thickness mm	13	13	90	90	13	13
plate width			140			
spacing mm			406			
surface density kg/m <sup>2</sup>	7.3	7.3		1.1	7.2	7.3
linear density kg/m			1.4			
total weight kg	53.9	54.5	69.7	7.8	53.8	53.9
fastener spacing - edge mm	406	610			610	406
fastener spacing - field mm	406	610			610	406
fastener top track pattern	c	c			c	c
fastener base track pattern	c	c			c	c
stud attached to top track			yes			
double header						
orientation	vertical	vertical			vertical	vertical

TL-93-436  
STC 53



2G16\_SWS140(406)\_CFL140\_2G16

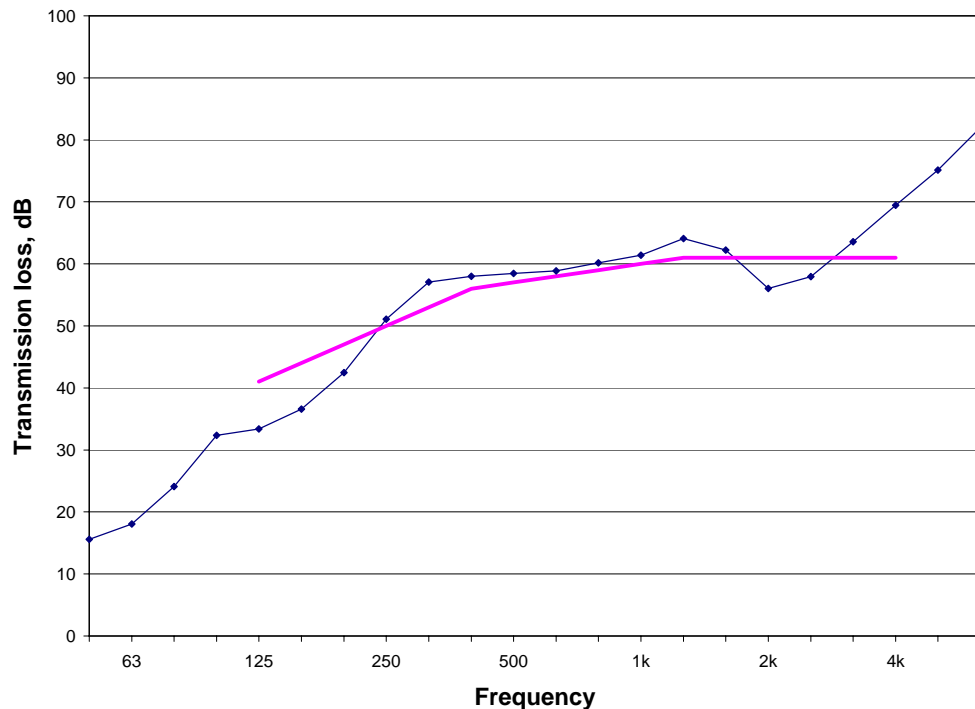
Element	Description:
1	single layer of 16 mm type X gypsum board
2	single layer of 16 mm type X gypsum board
3	90 mm wood studs at 406 mm on centre
4	140 mm of blown cellulose fibre insulation in cavity
5	single layer of 16 mm type X gypsum board
6	single layer of 16 mm type X gypsum board



TestID	TL-93-233
STC	57
50 Hz	15.6
63 Hz	18.1
80 Hz	24.1
100 Hz	32.4
125 Hz	33.4
160 Hz	36.6
200 Hz	42.5
250 Hz	51.1
315 Hz	57.1
400 Hz	58.0
500 Hz	58.4
630 Hz	58.9
800 Hz	60.2
1000 Hz	61.4
1250 Hz	64.1
1600 Hz	62.2
2000 Hz	56.1
2500 Hz	57.9
3150 Hz	63.6
4000 Hz	69.4
5000 Hz	75.1
6300 Hz	82.0

TL-93-233	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	gypsum board	stud	insulation	gypsum board	gypsum board
material	CX	CX	wood	C2	CX	CX
thickness mm	16	16	90	140	16	16
plate width			140			
spacing mm			406			
surface density kg/m <sup>2</sup>	11.5	11.5		7.0	11.4	11.3
linear density kg/m			1.2			
total weight kg	85.1	85.2	62.5	51.8	84.8	84.0
fastener spacing - edge mm	406	610			610	406
fastener spacing - field mm	406	610			610	406
fastener top track pattern	c	c			c	c
fastener base track pattern	c	c			c	c
stud attached to top track			yes			
double header						
orientation	vertical	vertical			vertical	vertical

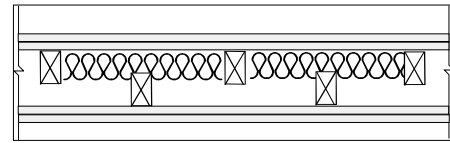
TL-93-233  
STC 57





2G16\_SWS140(406)\_GFB65\_GFB65\_2G16

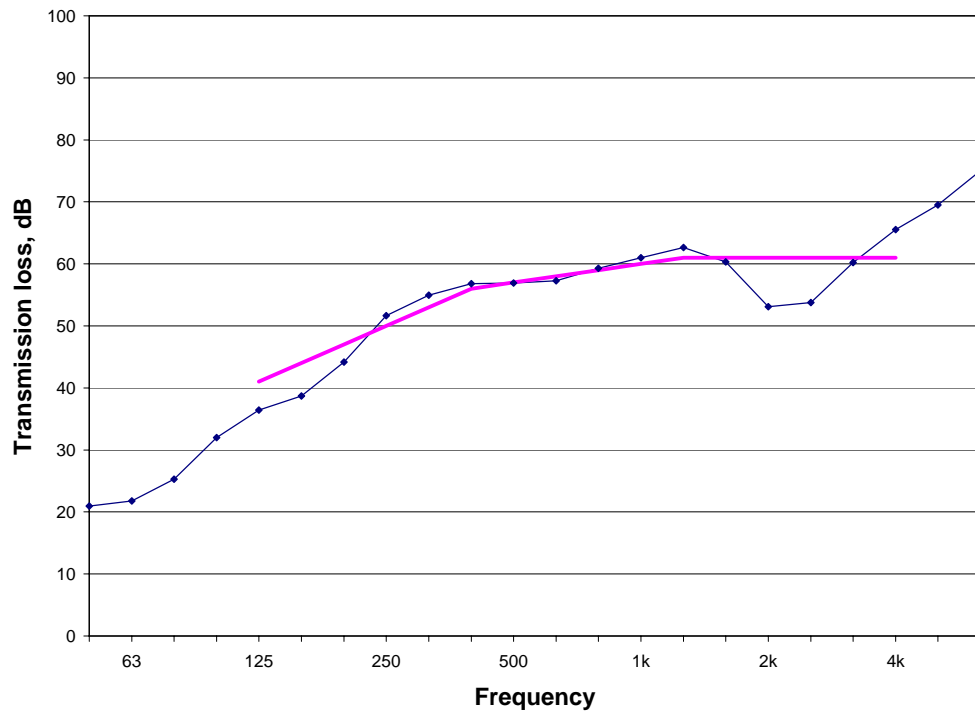
Element	Description:
1	single layer of 16 mm type X gypsum board
2	single layer of 16 mm type X gypsum board
3	90 mm wood studs at 406 mm on centre
4	130 mm of glass fibre insulation in cavity
5	single layer of 16 mm type X gypsum board
6	single layer of 16 mm type X gypsum board



TestID	TL-93-251
STC	57
50 Hz	21.0
63 Hz	21.8
80 Hz	25.3
100 Hz	32.0
125 Hz	36.4
160 Hz	38.7
200 Hz	44.1
250 Hz	51.7
315 Hz	55.0
400 Hz	56.8
500 Hz	56.9
630 Hz	57.3
800 Hz	59.3
1000 Hz	61.0
1250 Hz	62.6
1600 Hz	60.3
2000 Hz	53.1
2500 Hz	53.7
3150 Hz	60.2
4000 Hz	65.5
5000 Hz	69.5
6300 Hz	75.0

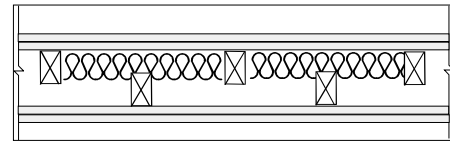
TL-93-251	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	gypsum board	stud	insulation	gypsum board	gypsum board
material	CX	CX	wood	G1	CX	CX
thickness mm	16	16	90	130	16	16
plate width			140			
spacing mm			406			
surface density kg/m <sup>2</sup>	11.6	11.8		1.6	11.6	11.5
linear density kg/m			1.3			
total weight kg	86.4	87.5	65.7	11.4	86.0	85.1
fastener spacing - edge mm	406	610			610	406
fastener spacing - field mm	406	610			610	406
fastener top track pattern	c	c			c	c
fastener base track pattern	c	c			c	c
stud attached to top track			yes			
double header						
orientation	vertical	vertical			vertical	vertical

TL-93-251  
STC 57



2G16\_SWS140(406)\_GFB90\_2G16

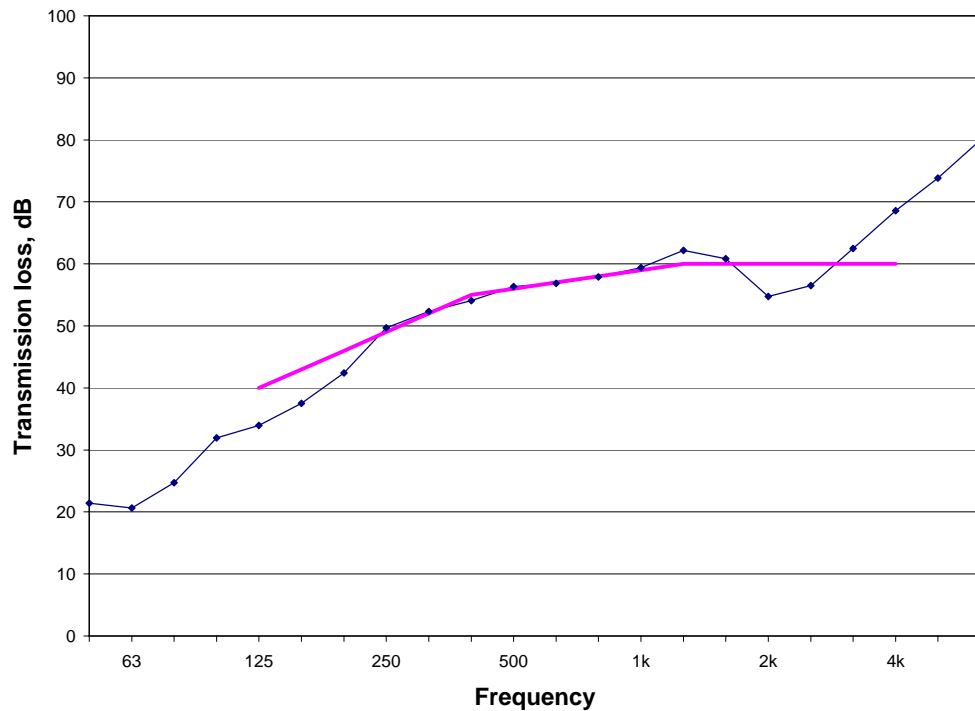
Element	Description:
1	single layer of 16 mm type X gypsum board
2	single layer of 16 mm type X gypsum board
3	90 mm wood studs at 406 mm on centre
4	90 mm of glass fibre insulation in cavity
5	single layer of 16 mm type X gypsum board
6	single layer of 16 mm type X gypsum board



TestID	TL-93-227
STC	56
50 Hz	21.4
63 Hz	20.6
80 Hz	24.7
100 Hz	31.9
125 Hz	34.0
160 Hz	37.5
200 Hz	42.4
250 Hz	49.7
315 Hz	52.3
400 Hz	54.1
500 Hz	56.4
630 Hz	56.9
800 Hz	57.9
1000 Hz	59.4
1250 Hz	62.2
1600 Hz	60.8
2000 Hz	54.7
2500 Hz	56.5
3150 Hz	62.5
4000 Hz	68.6
5000 Hz	73.8
6300 Hz	80.0

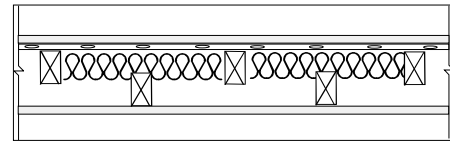
TL-93-227	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	gypsum board	stud	insulation	gypsum board	gypsum board
material	CX	CX	wood	G1	CX	CX
thickness mm	16	16	90	90	16	16
plate width			140			
spacing mm			406			
surface density kg/m <sup>2</sup>	11.3	11.3		1.1	11.3	11.2
linear density kg/m			1.2			
total weight kg	83.9	84.3	62.5	11.5	83.9	83.5
fastener spacing - edge mm	406	610			610	406
fastener spacing - field mm	406	610			610	406
fastener top track pattern	c	c			c	c
fastener base track pattern		c			c	c
stud attached to top track			yes			
double header						
orientation	vertical	vertical			vertical	vertical

TL-93-227  
STC 56



G13\_RC13(610)\_SWS140(406)\_CFL140\_G13

Element	Description:
1	single layer of 13 mm type X gypsum board
2	resilient channels at 610 mm on centre
3	90 mm wood studs at 406 mm on centre
4	140 mm of blown cellulose fibre insulation in cavity
5	single layer of 13 mm type X gypsum board

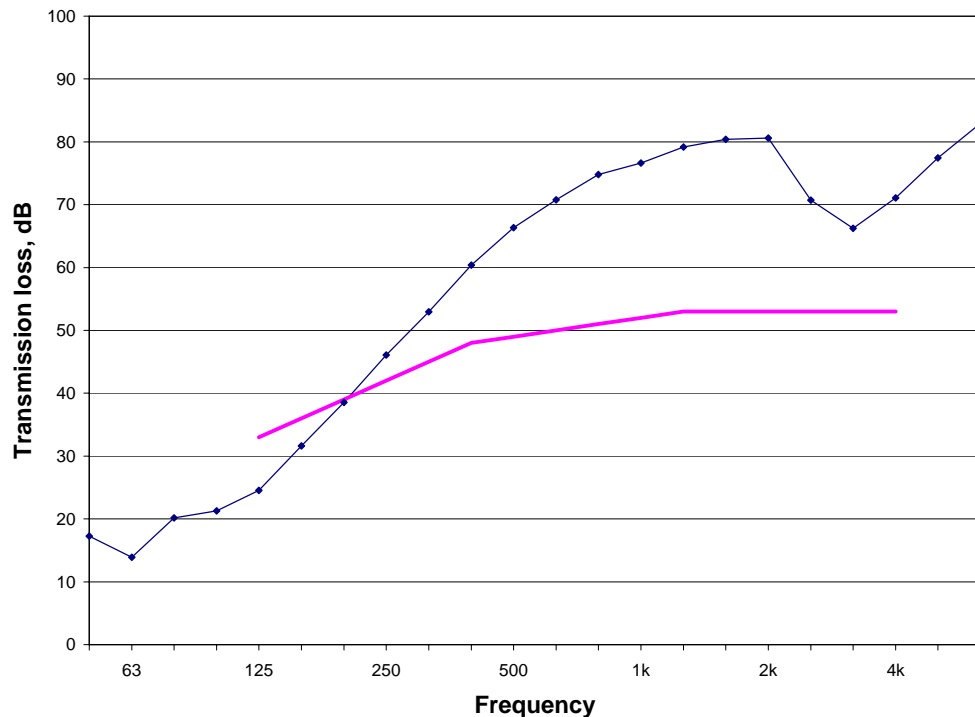


TestID	TL-93-239
STC	49
50 Hz	17.3
63 Hz	13.9
80 Hz	20.2
100 Hz	21.3
125 Hz	24.5
160 Hz	31.6
200 Hz	38.5
250 Hz	46.1
315 Hz	53.0
400 Hz	60.4
500 Hz	66.3
630 Hz	70.8
800 Hz	74.8
1000 Hz	76.6
1250 Hz	79.2
1600 Hz	80.4
2000 Hz	80.6
2500 Hz	70.7
3150 Hz	66.2
4000 Hz	71.1
5000 Hz	77.4
6300 Hz	83.0

TL-93-239

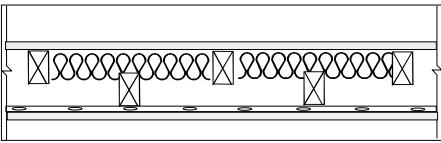
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	resilient	stud	insulation	gypsum board
material	AX	G.P.	wood	C2	AX
thickness mm	13	13	90	140	13
plate width			140		
spacing mm		610	406		
surface density kg/m <sup>2</sup>	10.0			7.0	10.0
linear density kg/m			1.2		
total weight kg	74.1	3.8	62.5	51.8	74.3
fastener spacing - edge mm	305				406
fastener spacing - field mm	305				406
fastener top track pattern					c
fastener base track pattern					c
stud attached to top track			yes		
double header					
orientation	horizontal	horizontal			vertical

TL-93-239  
STC 49



G13\_SWS140(406)\_CFS40\_RC13(610)\_G13

Element	Description:
1	single layer of 13 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	40 mm of sprayed cellulose fibre insulation in cavity
4	resilient channels at 610 mm on centre
5	single layer of 13 mm type X gypsum board

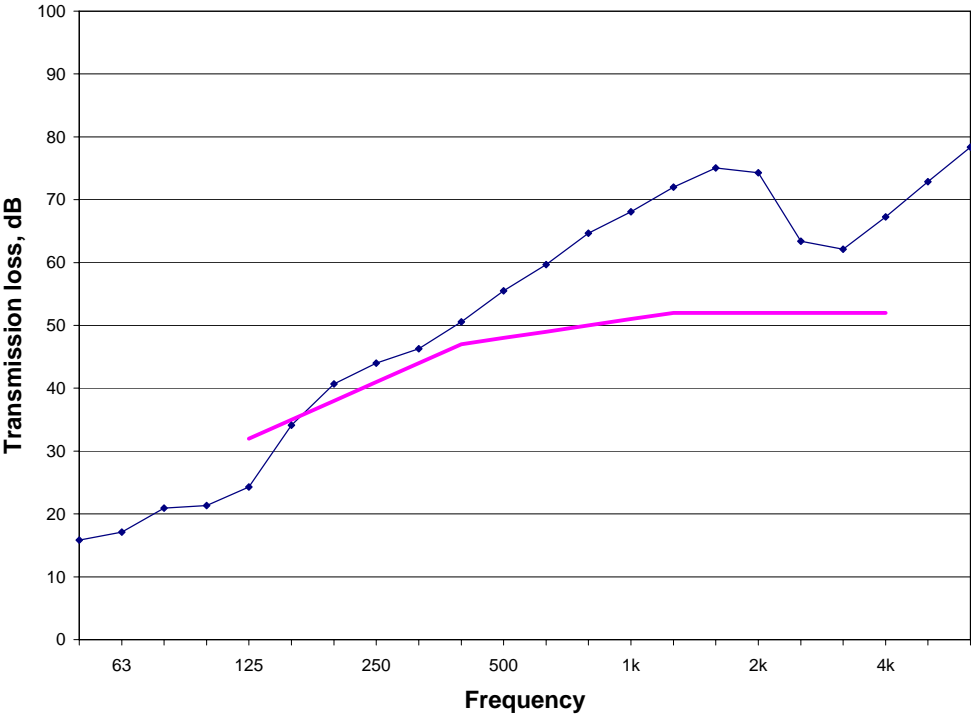


TestID	TL-93-259
STC	48
50 Hz	15.8
63 Hz	17.1
80 Hz	20.9
100 Hz	21.4
125 Hz	24.3
160 Hz	34.1
200 Hz	40.7
250 Hz	44.0
315 Hz	46.3
400 Hz	50.6
500 Hz	55.5
630 Hz	59.7
800 Hz	64.6
1000 Hz	68.1
1250 Hz	72.0
1600 Hz	75.1
2000 Hz	74.3
2500 Hz	63.4
3150 Hz	62.1
4000 Hz	67.3
5000 Hz	72.9
6300 Hz	78.4

TL-93-259

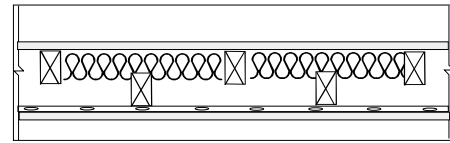
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	resilient	gypsum board
material	AX	wood	C1	G.P.	AX
thickness mm	13	90	40	13	13
plate width		140			
spacing mm		406		610	
surface density kg/m <sup>2</sup>	10.0		2.7		10.1
linear density kg/m		1.2			
total weight kg	74.1	62.5	20.2	3.9	75.4
fastener spacing - edge mm	406				305
fastener spacing - field mm	406				305
fastener top track pattern	c				
fastener base track pattern	c				
stud attached to top track		yes			
double header					
orientation	vertical			horizontal	horizontal

TL-93-259  
STC 48



G13\_SWS140(406)\_GFB90\_RC13(610)\_G13

Element	Description:
1	single layer of 13 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	resilient channels at 610 mm on centre
5	single layer of 13 mm type X gypsum board

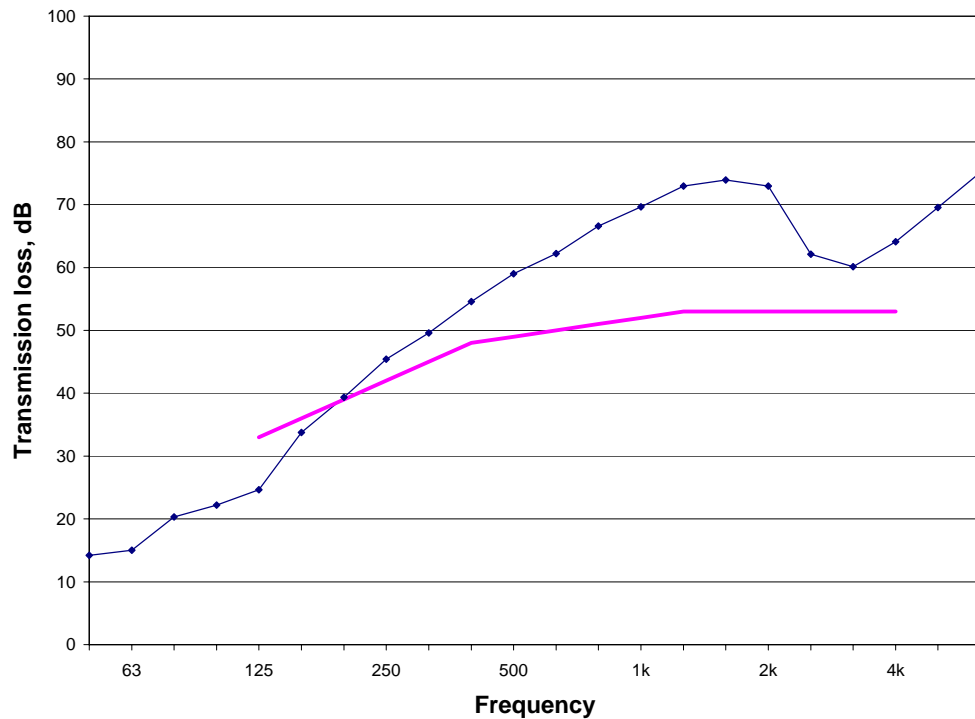


TestID	TL-93-213
STC	49
50 Hz	14.2
63 Hz	15.0
80 Hz	20.3
100 Hz	22.2
125 Hz	24.7
160 Hz	33.7
200 Hz	39.3
250 Hz	45.4
315 Hz	49.6
400 Hz	54.6
500 Hz	59.0
630 Hz	62.2
800 Hz	66.6
1000 Hz	69.7
1250 Hz	73.0
1600 Hz	73.9
2000 Hz	73.0
2500 Hz	62.1
3150 Hz	60.1
4000 Hz	64.1
5000 Hz	69.5
6300 Hz	75.1

TL-93-213

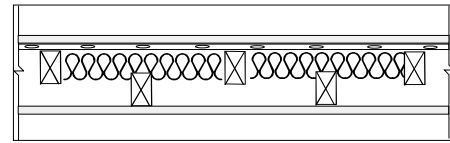
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	resilient	gypsum board
material	AX	wood	G1	G.P	AX
thickness mm	13	90	90	13	13
plate width		140			
spacing mm		406		610	
surface density kg/m <sup>2</sup>	9.9		1.1		10.0
linear density kg/m		1.2			
total weight kg	73.9	62.5	11.5	3.8	74.4
fastener spacing - edge mm	406				305
fastener spacing - field mm	406				305
fastener top track pattern	c				
fastener base track pattern	c				
stud attached to top track		yes			
double header					
orientation	vertical			horizontal	horizontal

TL-93-213  
STC 49



G16\_RC13(610)\_SWS140(406)\_CFL140\_G16

Element	Description:
1	single layer of 16 mm type X gypsum board
2	resilient channels at 610 mm on centre
3	90 mm wood studs at 406 mm on centre
4	140 mm of blown cellulose fibre insulation in cavity
5	single layer of 16 mm type X gypsum board

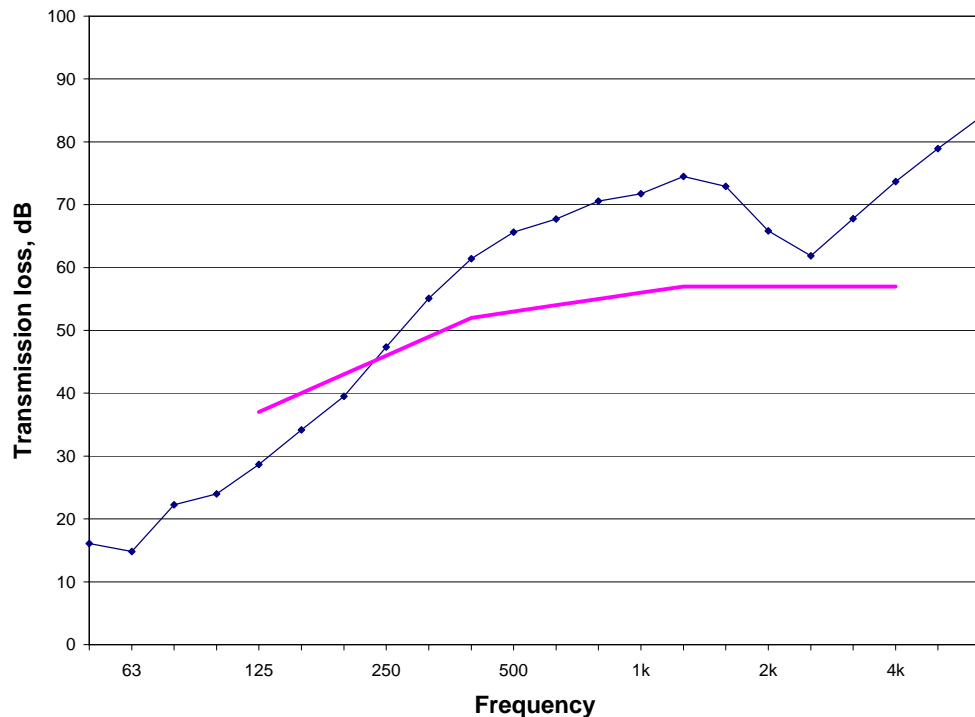


TestID	TL-93-238
STC	53
50 Hz	16.1
63 Hz	14.8
80 Hz	22.2
100 Hz	24.0
125 Hz	28.7
160 Hz	34.2
200 Hz	39.5
250 Hz	47.3
315 Hz	55.1
400 Hz	61.4
500 Hz	65.6
630 Hz	67.7
800 Hz	70.6
1000 Hz	71.7
1250 Hz	74.5
1600 Hz	72.9
2000 Hz	65.8
2500 Hz	61.9
3150 Hz	67.7
4000 Hz	73.7
5000 Hz	78.9
6300 Hz	83.9

TL-93-238

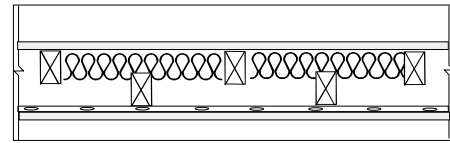
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	resilient	stud	insulation	gypsum board
material	CX	G.P.	wood	C2	CX
thickness mm	16	13	90	140	16
plate width			140		
spacing mm		610	406		
surface density kg/m <sup>2</sup>	11.1			7.0	11.4
linear density kg/m			1.2		
total weight kg	82.8	3.8	62.5	51.8	84.8
fastener spacing - edge mm	305				406
fastener spacing - field mm	305				406
fastener top track pattern					c
fastener base track pattern					c
stud attached to top track			yes		
double header					
orientation	horizontal	horizontal			vertical

TL-93-238  
STC 53



G16\_SWS140(406)\_CFS40\_RC13(610)\_G16

Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	40 mm of sprayed cellulose fibre insulation in cavity
4	resilient channels at 610 mm on centre
5	single layer of 16 mm type X gypsum board

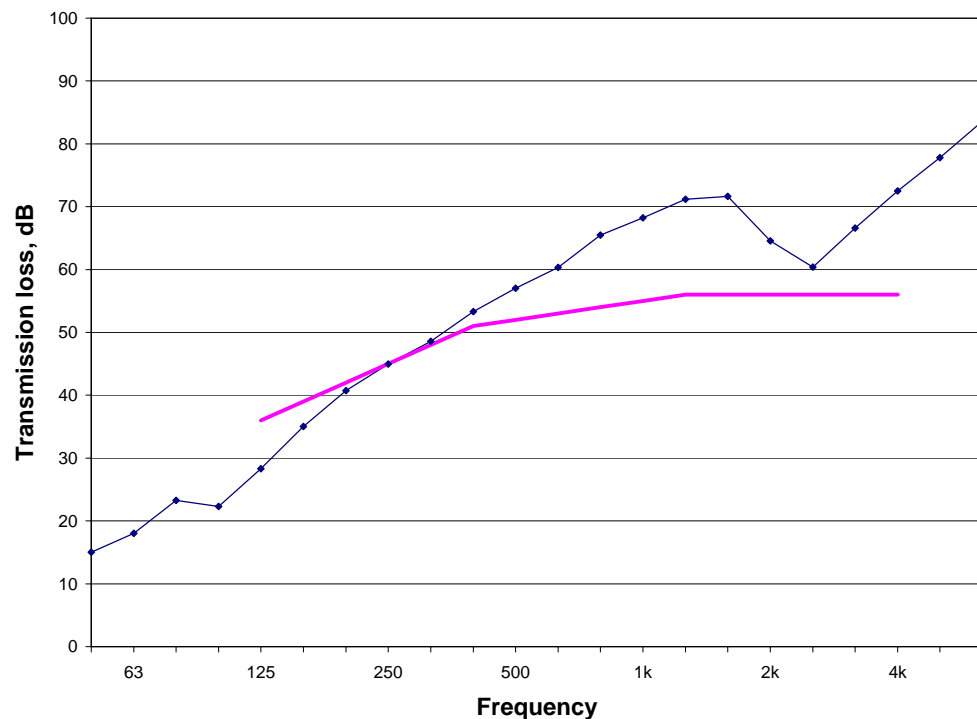


TestID	TL-93-244
STC	52
50 Hz	15.0
63 Hz	18.0
80 Hz	23.3
100 Hz	22.3
125 Hz	28.3
160 Hz	35.0
200 Hz	40.8
250 Hz	45.0
315 Hz	48.6
400 Hz	53.3
500 Hz	57.0
630 Hz	60.3
800 Hz	65.5
1000 Hz	68.2
1250 Hz	71.2
1600 Hz	71.7
2000 Hz	64.5
2500 Hz	60.4
3150 Hz	66.6
4000 Hz	72.5
5000 Hz	77.8
6300 Hz	83.6

TL-93-244

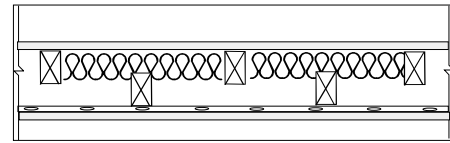
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	resilient	gypsum board
material	CX	wood	C1	G.P.	CX
thickness mm	16	90	40	13	16
plate width		140			
spacing mm		406		610	
surface density kg/m <sup>2</sup>	11.4		11.5		11.2
linear density kg/m		1.3			
total weight kg	84.4	65.7	21.0	3.9	83.0
fastener spacing - edge mm	406				305
fastener spacing - field mm	406				305
fastener top track pattern	c				
fastener base track pattern	c				
stud attached to top track		yes			
double header					
orientation	vertical			horizontal	horizontal

TL-93-244  
STC 52



G16\_SWS140(406)\_GFB90\_RC13(610)\_G16

Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	resilient channels at 610 mm on centre
5	single layer of 16 mm type X gypsum board

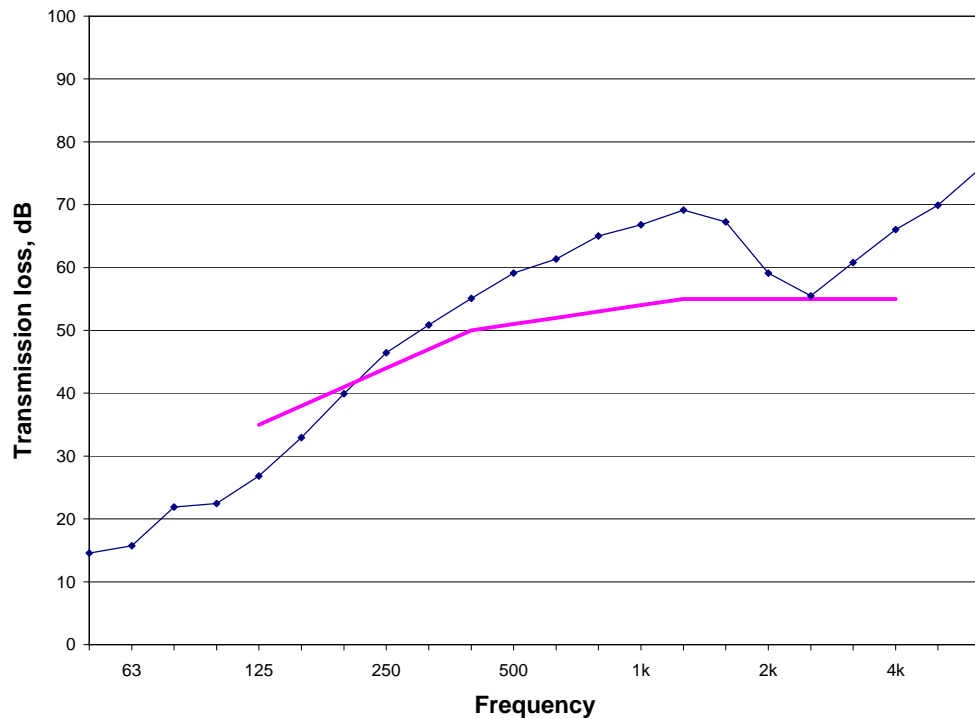


TestID	TL-93-214
STC	51
50 Hz	14.5
63 Hz	15.7
80 Hz	21.9
100 Hz	22.5
125 Hz	26.8
160 Hz	33.0
200 Hz	39.9
250 Hz	46.4
315 Hz	50.8
400 Hz	55.1
500 Hz	59.1
630 Hz	61.4
800 Hz	65.0
1000 Hz	66.8
1250 Hz	69.1
1600 Hz	67.3
2000 Hz	59.1
2500 Hz	55.5
3150 Hz	60.8
4000 Hz	66.0
5000 Hz	69.9
6300 Hz	75.8

TL-93-214

	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	insulation	resilient	gypsum board
material	CX	wood	G1	G.P	CX
thickness mm	16	90	90	13	16
plate width		140			
spacing mm		406		610	
surface density kg/m <sup>2</sup>	11.3		1.1		11.1
linear density kg/m		1.2			
total weight kg	83.7	62.5	11.5	3.8	82.2
fastener spacing - edge mm	406				305
fastener spacing - field mm	406				305
fastener top track pattern	c				
fastener base track pattern	c				
stud attached to top track		yes			
double header					
orientation	vertical			horizontal	horizontal

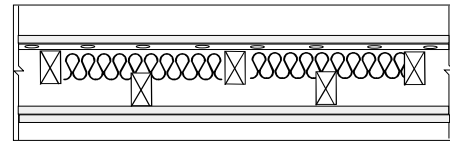
TL-93-214  
STC 51





G16\_RC13(610)\_SWS140(406)\_CFL140\_2G16

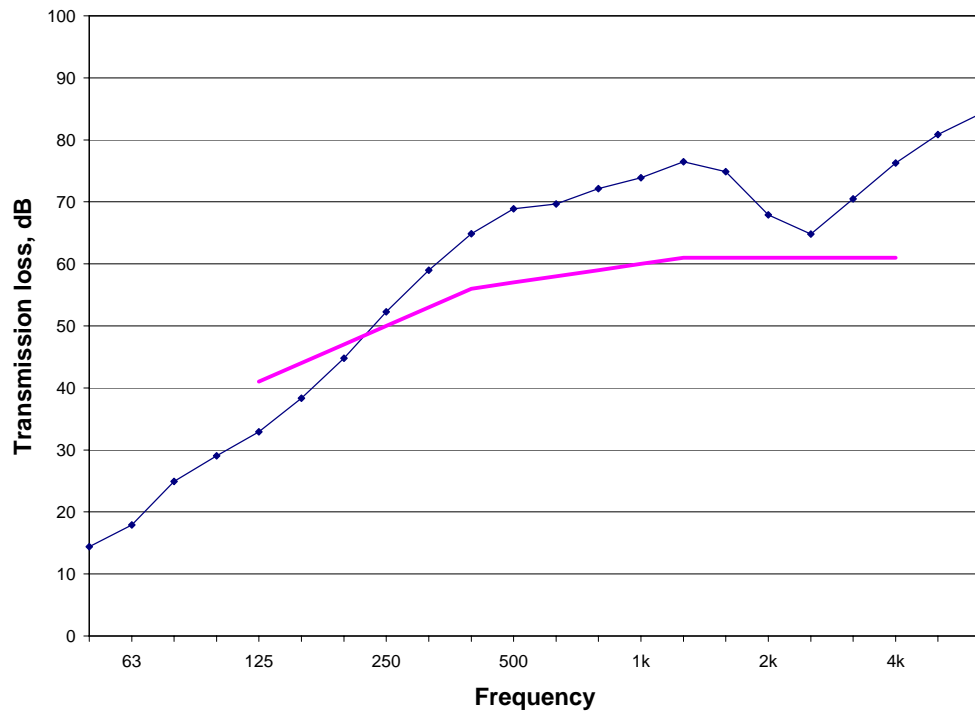
Element	Description:
1	single layer of 16 mm type X gypsum board
2	resilient channels at 610 mm on centre
3	90 mm wood studs at 406 mm on centre
4	140 mm of blown cellulose fibre insulation in cavity
5	single layer of 16 mm type X gypsum board
6	single layer of 16 mm type X gypsum board



TestID	TL-93-235
STC	57
50 Hz	14.4
63 Hz	17.9
80 Hz	24.9
100 Hz	29.1
125 Hz	32.9
160 Hz	38.3
200 Hz	44.8
250 Hz	52.3
315 Hz	59.0
400 Hz	64.8
500 Hz	68.9
630 Hz	69.7
800 Hz	72.1
1000 Hz	73.9
1250 Hz	76.5
1600 Hz	74.8
2000 Hz	67.9
2500 Hz	64.8
3150 Hz	70.5
4000 Hz	76.3
5000 Hz	80.9
6300 Hz	84.2

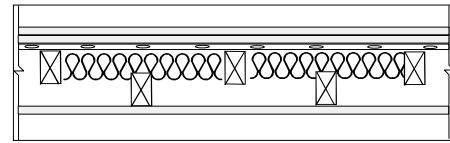
TL-93-235	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	resilient	stud	insulation	gypsum board	gypsum board
material	CX	G.P.	wood	C2	CX	CX
thickness mm	16	13	90	140	16	16
plate width			140			
spacing mm		610	406			
surface density kg/m <sup>2</sup>	11.1			7.0	11.4	11.3
linear density kg/m			1.2			
total weight kg	82.8	3.8	62.5	51.8	84.8	84.0
fastener spacing - edge mm	305				610	406
fastener spacing - field mm	305				610	406
fastener top track pattern					c	c
fastener base track pattern					c	c
stud attached to top track			yes			
double header						
orientation	horizontal	horizontal			vertical	vertical

TL-93-235  
STC 57



2G13\_RC13(610)\_SWS140(406)\_CFL140\_G13

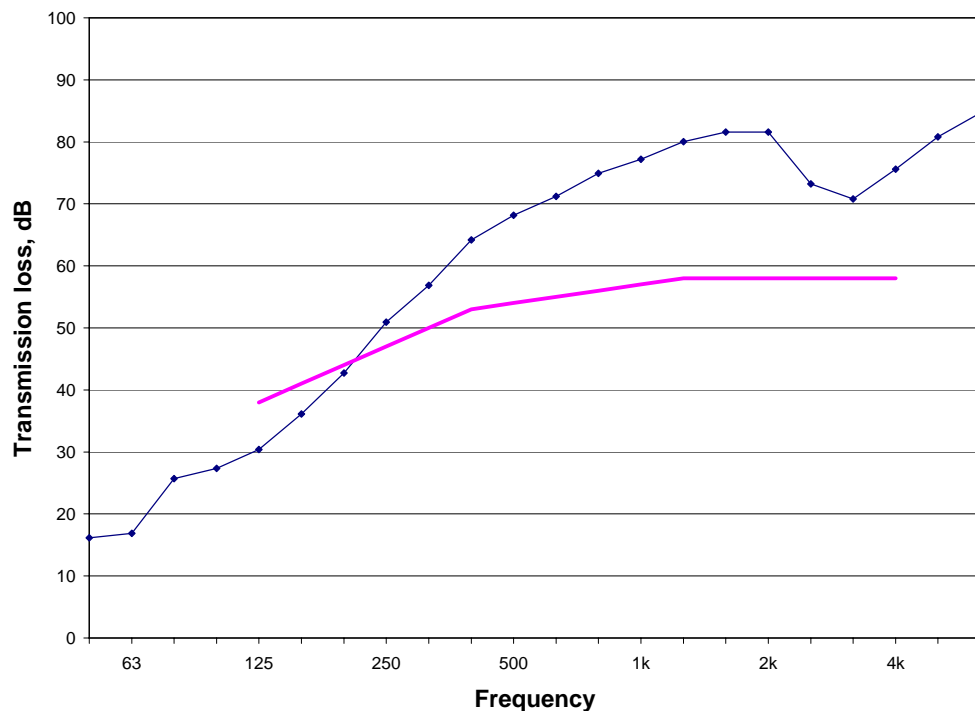
Element	Description:
1	single layer of 13 mm type X gypsum board
2	single layer of 13 mm type X gypsum board
3	resilient channels at 610 mm on centre
4	90 mm wood studs at 406 mm on centre
5	140 mm of blown cellulose fibre insulation in cavity
6	single layer of 13 mm type X gypsum board



TestID	TL-93-240
STC	54
50 Hz	16.1
63 Hz	16.9
80 Hz	25.7
100 Hz	27.4
125 Hz	30.4
160 Hz	36.1
200 Hz	42.7
250 Hz	50.9
315 Hz	56.9
400 Hz	64.2
500 Hz	68.2
630 Hz	71.2
800 Hz	74.9
1000 Hz	77.2
1250 Hz	80.0
1600 Hz	81.6
2000 Hz	81.6
2500 Hz	73.2
3150 Hz	70.8
4000 Hz	75.6
5000 Hz	80.8
6300 Hz	84.7

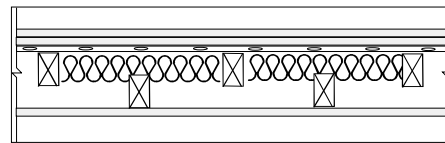
TL-93-240	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	gypsum board	resilient	stud	insulation	gypsum board
material	AX	AX	G.P.	wood	C2	AX
thickness mm	13	13	13	90	140	13
plate width				140		
spacing mm			610	406		
surface density kg/m <sup>2</sup>	10.0	10.0			7.0	10.0
linear density kg/m				1.2		
total weight kg	74.6	74.1	3.8	62.5	51.8	74.3
fastener spacing - edge mm	305	305				406
fastener spacing - field mm	305	610				406
fastener top track pattern						c
fastener base track pattern						c
stud attached to top track				yes		
double header						
orientation	vertical	horizontal	horizontal			vertical

TL-93-240  
STC 54



2G16\_RC13(610)\_SWS140(406)\_CFL140\_G16

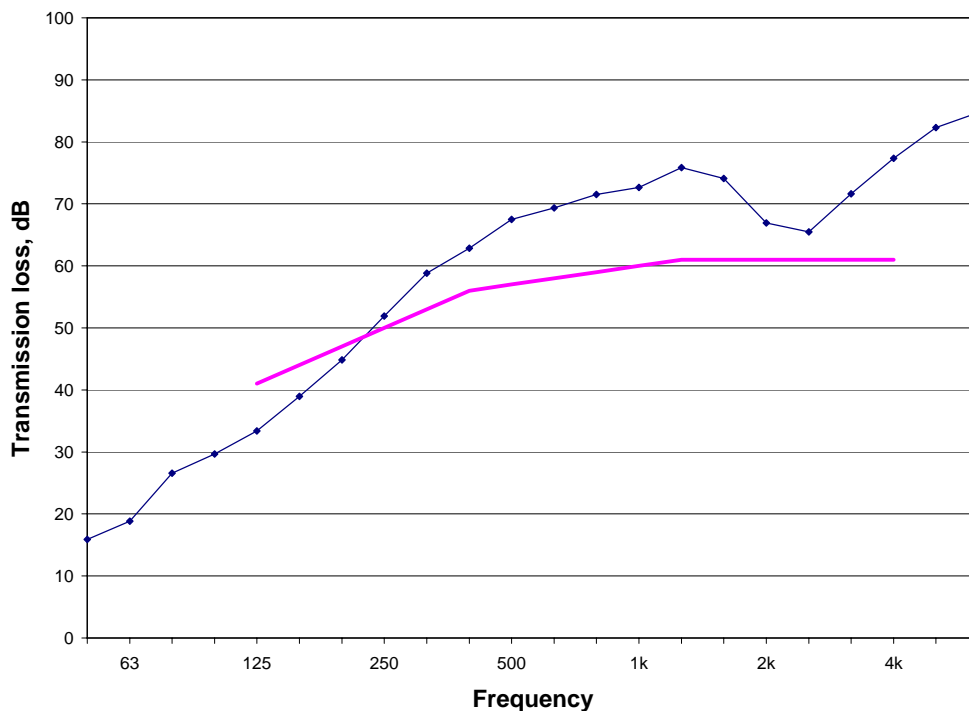
Element	Description:
1	single layer of 16 mm type X gypsum board
2	single layer of 16 mm type X gypsum board
3	resilient channels at 610 mm on centre
4	90 mm wood studs at 406 mm on centre
5	140 mm of blown cellulose fibre insulation in cavity
6	single layer of 16 mm type X gypsum board



TestID	TL-93-237
STC	57
50 Hz	15.9
63 Hz	18.8
80 Hz	26.6
100 Hz	29.7
125 Hz	33.4
160 Hz	39.0
200 Hz	44.8
250 Hz	51.9
315 Hz	58.8
400 Hz	62.8
500 Hz	67.5
630 Hz	69.4
800 Hz	71.5
1000 Hz	72.7
1250 Hz	75.9
1600 Hz	74.1
2000 Hz	66.9
2500 Hz	65.5
3150 Hz	71.6
4000 Hz	77.3
5000 Hz	82.3
6300 Hz	84.7

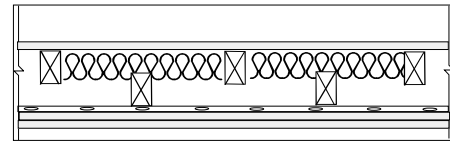
TL-93-237	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	gypsum board	resilient	stud	insulation	gypsum board
material	CX	CX	G.P	wood	C2	CX
thickness mm	16	16	13	90	140	16
plate width				140		
spacing mm			610	406		
surface density kg/m <sup>2</sup>	11.5	11.1			7.0	11.4
linear density kg/m				1.2		
total weight kg	85.2	82.8	3.8	62.5	51.8	84.8
fastener spacing - edge mm	305	305				406
fastener spacing - field mm	305	610				406
fastener top track pattern						c
fastener base track pattern						c
stud attached to top track				yes		
double header						
orientation	vertical	horizontal	horizontal			vertical

TL-93-237  
STC 57



G13\_SWS140(406)\_GFB90\_RC13(610)\_2G13

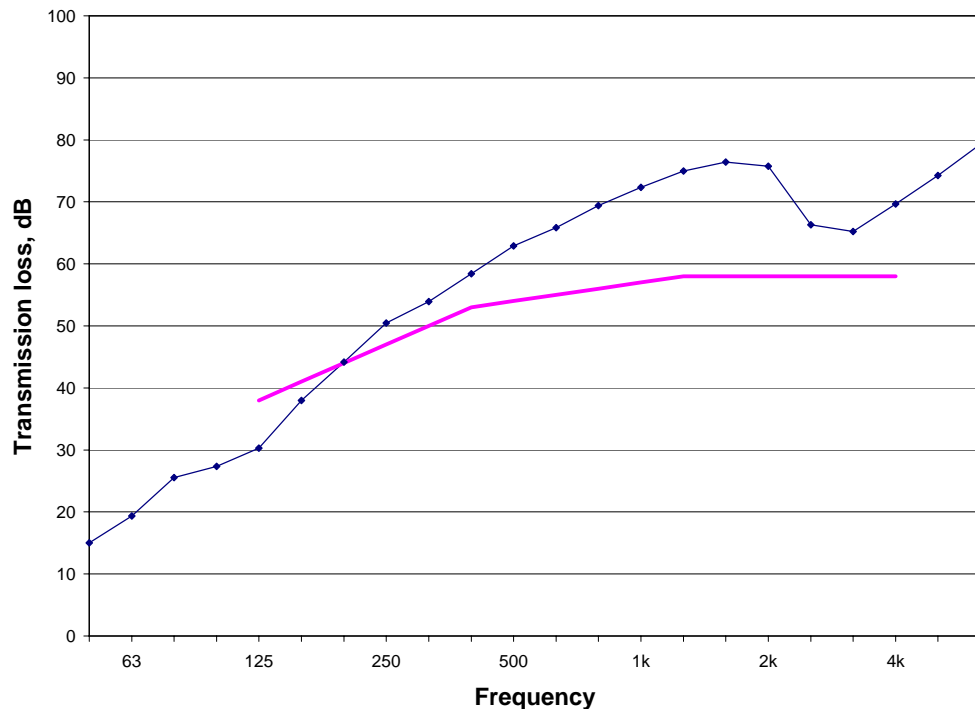
Element	Description:
1	single layer of 13 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	resilient channels at 610 mm on centre
5	single layer of 13 mm type X gypsum board
6	single layer of 13 mm type X gypsum board



TestID	TL-93-212
STC	54
50 Hz	15.0
63 Hz	19.4
80 Hz	25.6
100 Hz	27.3
125 Hz	30.3
160 Hz	38.0
200 Hz	44.2
250 Hz	50.4
315 Hz	53.9
400 Hz	58.4
500 Hz	62.9
630 Hz	65.8
800 Hz	69.4
1000 Hz	72.3
1250 Hz	75.0
1600 Hz	76.4
2000 Hz	75.8
2500 Hz	66.3
3150 Hz	65.2
4000 Hz	69.7
5000 Hz	74.3
6300 Hz	79.3

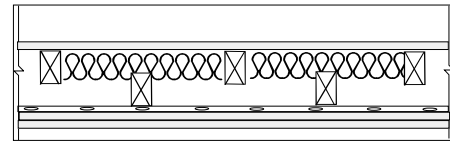
TL-93-212	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	stud	insulation	resilient	gypsum board	gypsum board
material	AX	wood	G1	G.P	AX	AX
thickness mm	13	90	90	13	13	13
plate width		140				
spacing mm		406		610		
surface density kg/m <sup>2</sup>	9.9		1.1		10.0	10.1
linear density kg/m		1.2				
total weight kg	73.9	62.5	11.5	3.8	74.4	75.1
fastener spacing - edge mm	406				305	305
fastener spacing - field mm	406				610	305
fastener top track pattern	c					
fastener base track pattern	c					
stud attached to top track		yes				
double header						
orientation	vertical			horizontal	horizontal	vertical

TL-93-212  
STC 54



G16\_SWS140(406)\_GFB90\_RC13(610)\_2G16

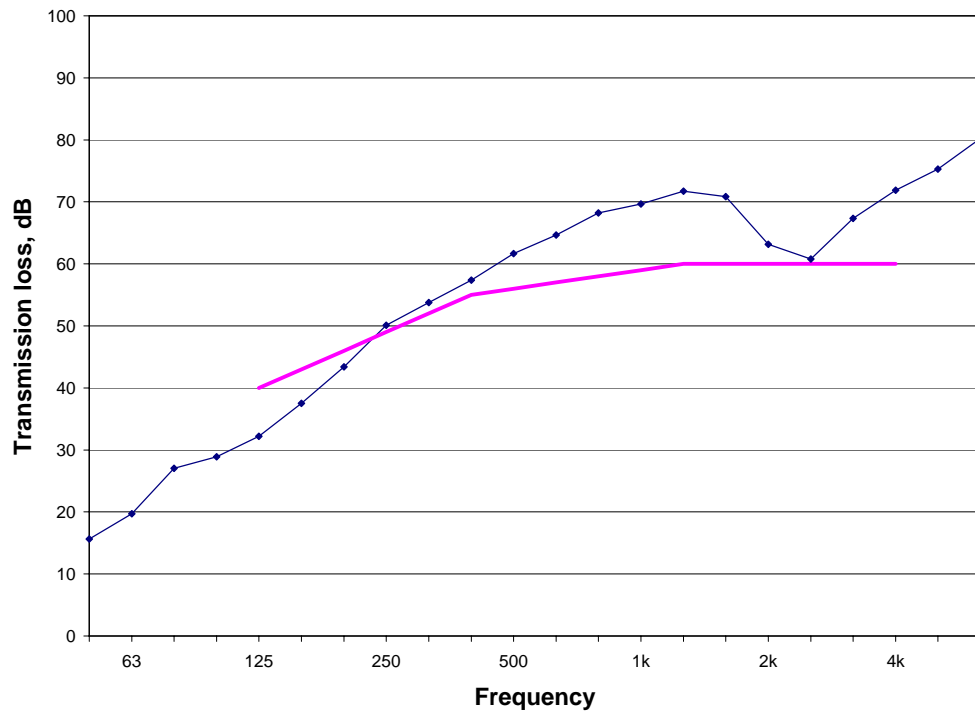
Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	resilient channels at 610 mm on centre
5	single layer of 16 mm type X gypsum board
6	single layer of 16 mm type X gypsum board



TestID	TL-93-215
STC	56
50 Hz	15.6
63 Hz	19.7
80 Hz	27.0
100 Hz	28.9
125 Hz	32.2
160 Hz	37.5
200 Hz	43.4
250 Hz	50.1
315 Hz	53.8
400 Hz	57.4
500 Hz	61.7
630 Hz	64.6
800 Hz	68.2
1000 Hz	69.7
1250 Hz	71.7
1600 Hz	70.9
2000 Hz	63.1
2500 Hz	60.8
3150 Hz	67.3
4000 Hz	71.9
5000 Hz	75.3
6300 Hz	80.2

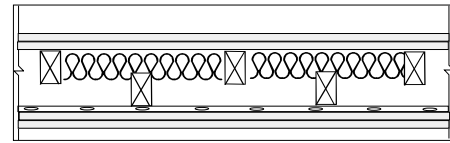
TL-93-215	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	stud	insulation	resilient	gypsum board	gypsum board
material	CX	wood	G1	G.P	CX	CX
thickness mm	16	90	90	13	16	16
plate width		140				
spacing mm		406		610		
surface density kg/m <sup>2</sup>	11.3		1.1		11.1	11.3
linear density kg/m		1.2				
total weight kg	83.7	62.5	11.5	3.8	82.2	84.0
fastener spacing - edge mm	406				305	305
fastener spacing - field mm	406				610	305
fastener top track pattern	c					
fastener base track pattern	c					
stud attached to top track		yes				
double header						
orientation	vertical			horizontal	horizontal	vertical

TL-93-215  
STC 56



2G13\_SWS140(406)\_GFB90\_RC13(610)\_2G13

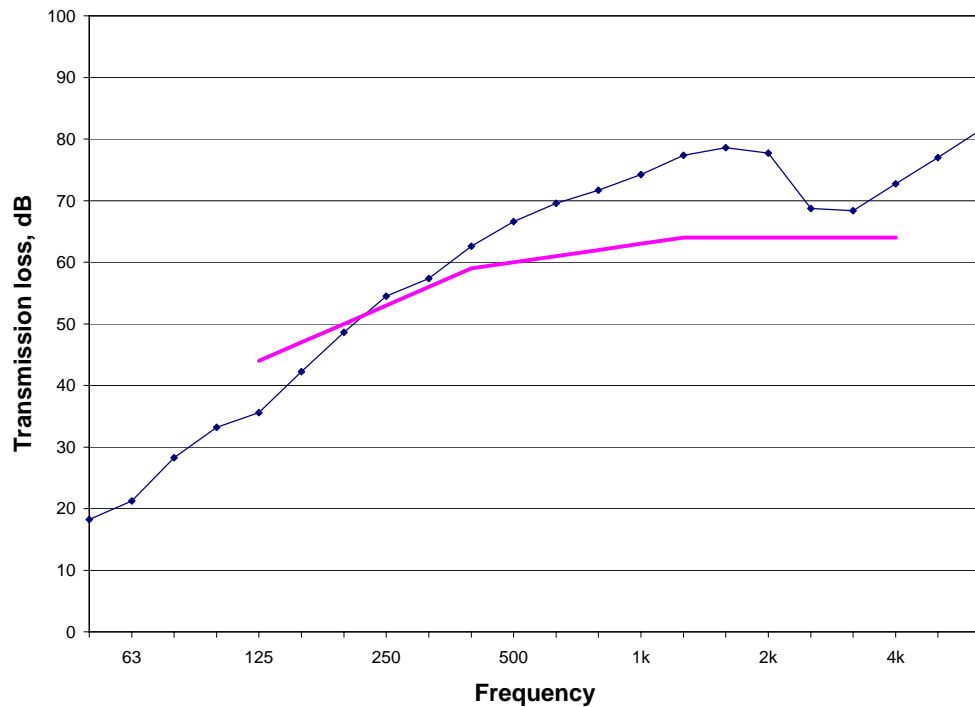
Element	Description:
1	single layer of 13 mm type X gypsum board
2	single layer of 13 mm type X gypsum board
3	90 mm wood studs at 406 mm on centre
4	90 mm of glass fibre insulation in cavity
5	resilient channels at 610 mm on centre
6	single layer of 13 mm type X gypsum board
7	single layer of 13 mm type X gypsum board



TestID	TL-93-211
STC	60
50 Hz	18.2
63 Hz	21.3
80 Hz	28.3
100 Hz	33.2
125 Hz	35.6
160 Hz	42.2
200 Hz	48.6
250 Hz	54.5
315 Hz	57.4
400 Hz	62.6
500 Hz	66.6
630 Hz	69.6
800 Hz	71.7
1000 Hz	74.2
1250 Hz	77.3
1600 Hz	78.6
2000 Hz	77.7
2500 Hz	68.7
3150 Hz	68.4
4000 Hz	72.7
5000 Hz	77.0
6300 Hz	81.4

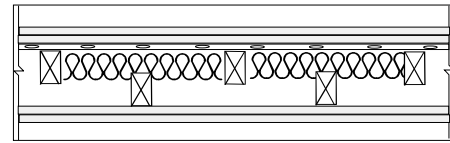
TL-93-211	element 1	element 2	element 3	element 4	element 5	element 6	element 7
type	gypsum board	gypsum board	stud	insulation	resilient	gypsum board	gypsum board
material	AX	AX	wood	G1	G.P	AX	AX
thickness mm	13	13	90	90	13	13	13
plate width			140				
spacing mm			406		610		
surface density kg/m <sup>2</sup>	10.0	9.9		1.1		10.0	10.1
linear density kg/m			1.2				
total weight kg	74.2	73.9	62.5	11.5	3.8	74.4	75.1
fastener spacing - edge mm	406	610				305	305
fastener spacing - field mm	406	610				610	305
fastener top track pattern	c	c				c	c
fastener base track pattern	c	c				c	c
stud attached to top track			yes				
double header							
orientation	vertical	vertical			horizontal	horizontal	vertical

TL-93-211  
STC 60



2G16\_RC13(610)\_SWS140(406)\_CFL140\_2G16

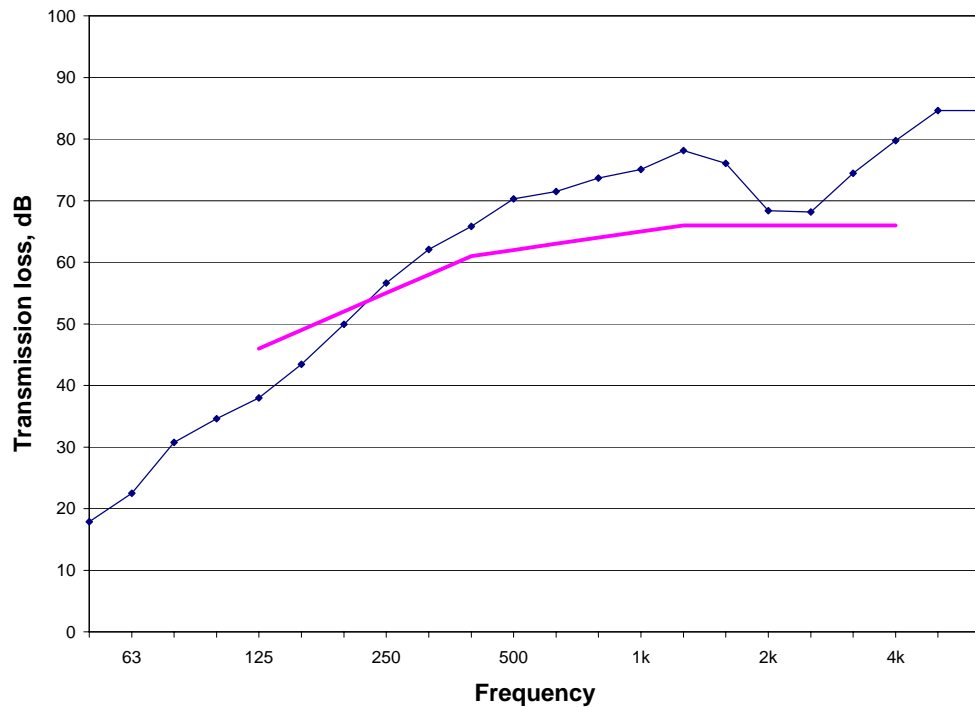
Element	Description:
1	single layer of 16 mm type X gypsum board
2	single layer of 16 mm type X gypsum board
3	resilient channels at 610 mm on centre
4	90 mm wood studs at 406 mm on centre
5	140 mm of blown cellulose fibre insulation in cavity
6	single layer of 16 mm type X gypsum board
7	single layer of 16 mm type X gypsum board



TestID	TL-93-236
STC	62
50 Hz	17.9
63 Hz	22.5
80 Hz	30.7
100 Hz	34.6
125 Hz	38.0
160 Hz	43.4
200 Hz	49.9
250 Hz	56.6
315 Hz	62.1
400 Hz	65.8
500 Hz	70.3
630 Hz	71.5
800 Hz	73.7
1000 Hz	75.1
1250 Hz	78.1
1600 Hz	76.1
2000 Hz	68.4
2500 Hz	68.2
3150 Hz	74.4
4000 Hz	79.8
5000 Hz	84.6
6300 Hz	84.6

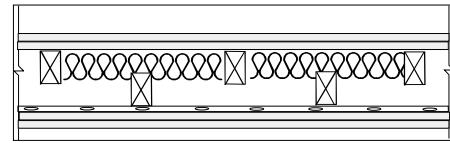
TL-93-236	element 1	element 2	element 3	element 4	element 5	element 6	element 7
type	gypsum board	gypsum board	resilient	stud	insulation	gypsum board	gypsum board
material	CX	CX	G.P	wood	C2	CX	CX
thickness mm	16	16	13	90	140	16	16
plate width				140			
spacing mm			610	406			
surface density kg/m <sup>2</sup>	11.5	11.1			7.0	11.4	11.3
linear density kg/m				1.2			
total weight kg	85.2	82.8	3.8	62.5	51.8	84.8	84.0
fastener spacing - edge mm	305	305				610	406
fastener spacing - field mm	305	610				610	406
fastener top track pattern						c	c
fastener base track pattern						c	c
stud attached to top track				yes			
double header							
orientation	vertical	horizontal	horizontal			vertical	vertical

TL-93-236  
STC 62



2G16\_SWS140(406)\_GFB90\_RC13(610)\_2G16

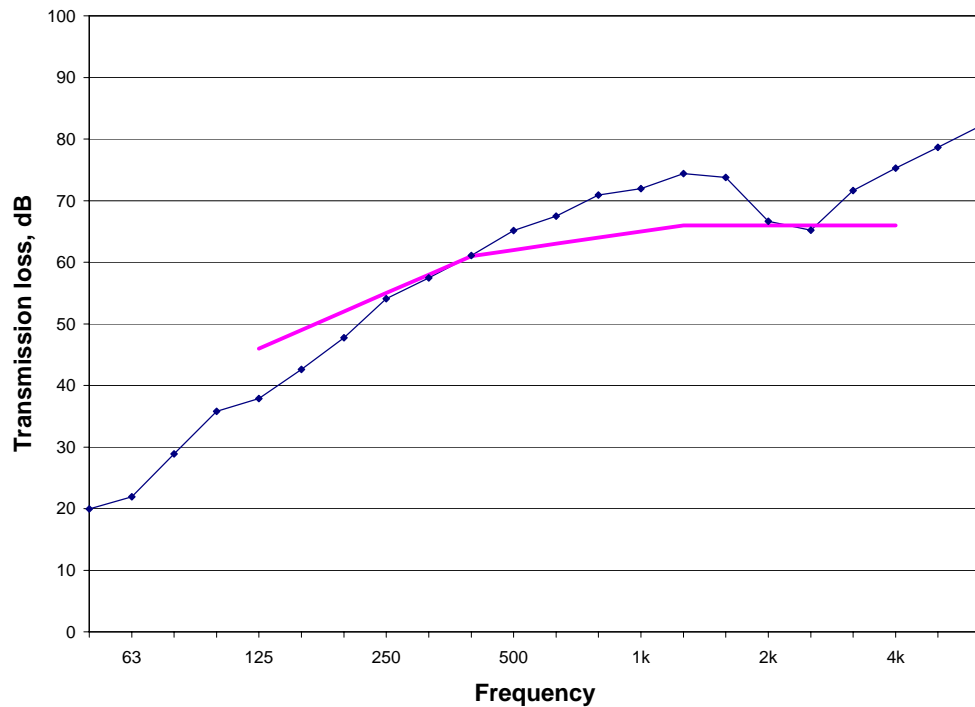
Element	Description:
1	single layer of 16 mm type X gypsum board
2	single layer of 16 mm type X gypsum board
3	90 mm wood studs at 406 mm on centre
4	90 mm of glass fibre insulation in cavity
5	resilient channels at 610 mm on centre
6	single layer of 16 mm type X gypsum board
7	single layer of 16 mm type X gypsum board



TestID	TL-93-216
STC	62
50 Hz	20.0
63 Hz	21.9
80 Hz	28.9
100 Hz	35.8
125 Hz	37.9
160 Hz	42.6
200 Hz	47.8
250 Hz	54.1
315 Hz	57.4
400 Hz	61.1
500 Hz	65.2
630 Hz	67.5
800 Hz	70.9
1000 Hz	72.0
1250 Hz	74.4
1600 Hz	73.8
2000 Hz	66.6
2500 Hz	65.2
3150 Hz	71.7
4000 Hz	75.3
5000 Hz	78.7
6300 Hz	82.1

TL-93-216	element 1	element 2	element 3	element 4	element 5	element 6	element 7
type	gypsum board	gypsum board	stud	insulation	resilient	gypsum board	gypsum board
material	CX	CX	wood	G1	G.P.	CX	CX
thickness mm	16	16	90	90	13	16	16
plate width			140				
spacing mm			406		610		
surface density kg/m <sup>2</sup>	11.4	11.3		1.1		11.1	11.3
linear density kg/m			1.2				
total weight kg	84.7	83.7	62.5	11.5	3.8	82.2	84.0
fastener spacing - edge mm	305	610				305	305
fastener spacing - field mm	610	610				610	305
fastener top track pattern	c	c					
fastener base track pattern	c	c					
stud attached to top track			yes				
double header							
orientation	horizontal	vertical			horizontal	vertical	vertical

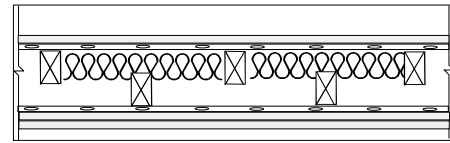
TL-93-216  
STC 62





G16\_RC13(610)\_SWS140(406)\_GFB90\_RC13(610)\_2G16

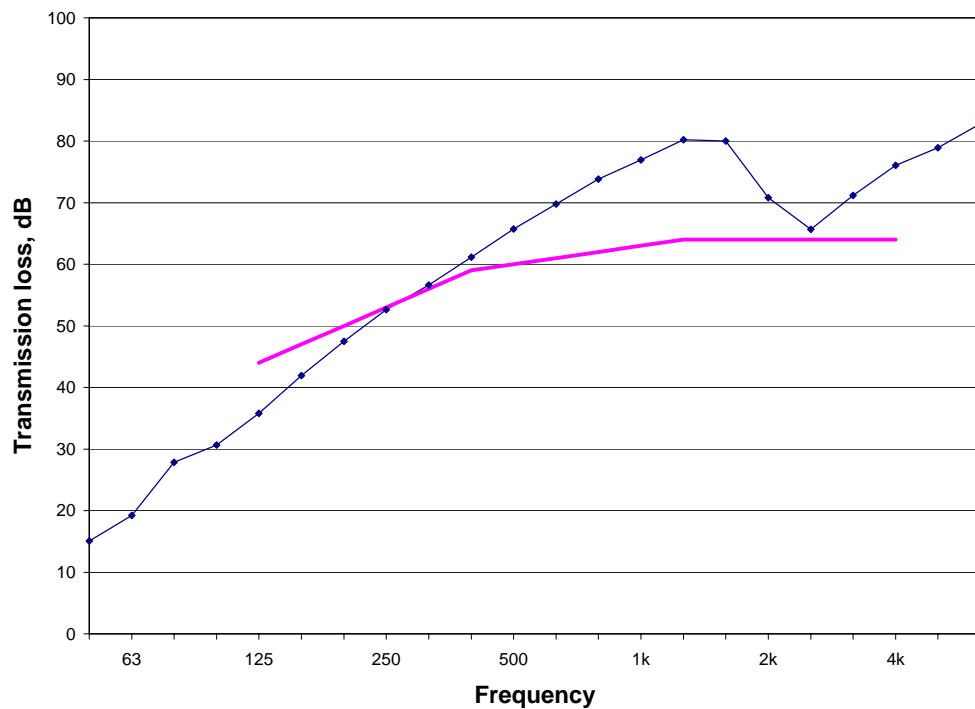
Element	Description:
1	single layer of 16 mm type X gypsum board
2	resilient channels at 610 mm on centre
3	90 mm wood studs at 406 mm on centre
4	90 mm of glass fibre insulation in cavity
5	resilient channels at 610 mm on centre
6	single layer of 16 mm type X gypsum board
7	single layer of 16 mm type X gypsum board



TestID	TL-93-222
STC	60
50 Hz	15.1
63 Hz	19.2
80 Hz	27.8
100 Hz	30.7
125 Hz	35.8
160 Hz	41.9
200 Hz	47.5
250 Hz	52.6
315 Hz	56.6
400 Hz	61.2
500 Hz	65.7
630 Hz	69.8
800 Hz	73.8
1000 Hz	76.9
1250 Hz	80.2
1600 Hz	80.0
2000 Hz	70.8
2500 Hz	65.6
3150 Hz	71.1
4000 Hz	76.1
5000 Hz	78.9
6300 Hz	82.8

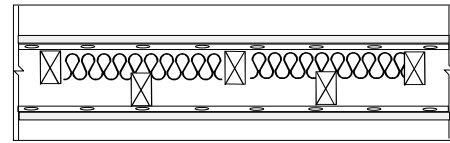
TL-93-222	element 1	element 2	element 3	element 4	element 5	element 6	element 7
type	gypsum board	resilient	stud	insulation	resilient	gypsum board	gypsum board
material	CX	G.P.	wood	G1	G.P.	CX	CX
thickness mm	16	13	90	90	13	16	16
plate width			140				
spacing mm		610	406		610		
surface density kg/m <sup>2</sup>	11.2			1.1		11.1	11.3
linear density kg/m			1.2				
total weight kg	83.0	3.8	62.5	11.5	3.8	82.2	84.0
fastener spacing - edge mm	305					305	305
fastener spacing - field mm	305					610	305
fastener top track pattern							
fastener base track pattern							
stud attached to top track			yes				
double header							
orientation	horizontal	horizontal			horizontal	horizontal	vertical

TL-93-222  
STC 60



G13\_RC13(610)\_SWS140(406)\_GFB90\_RC13(610)\_G13

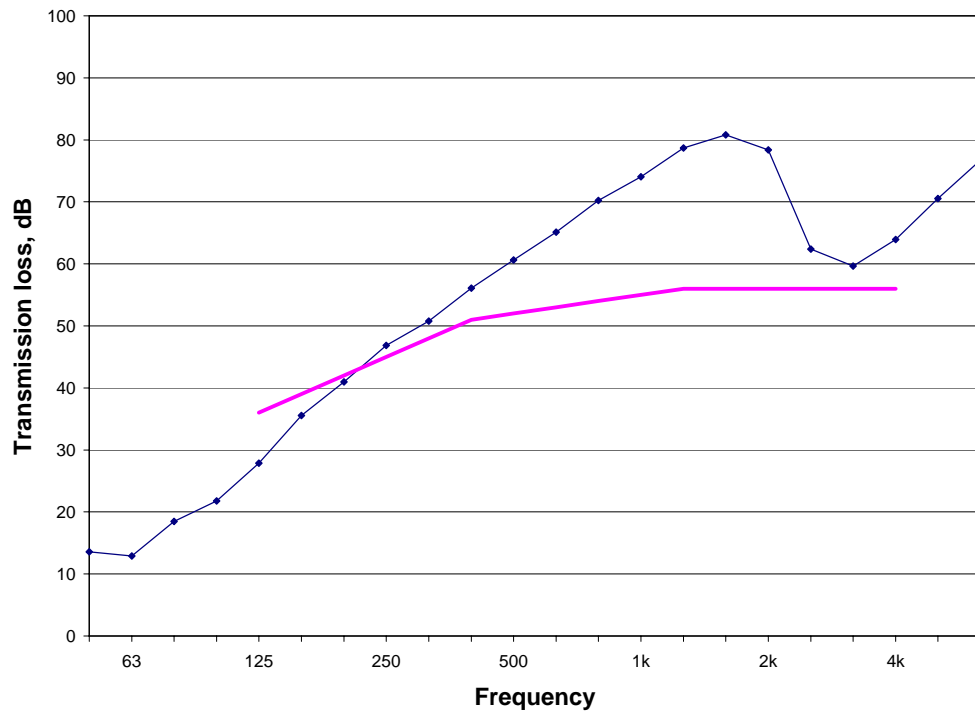
Element	Description:
1	single layer of 13 mm type X gypsum board
2	resilient channels at 610 mm on centre
3	90 mm wood studs at 406 mm on centre
4	90 mm of glass fibre insulation in cavity
5	resilient channels at 610 mm on centre
6	single layer of 13 mm type X gypsum board



TestID	TL-93-224
STC	52
50 Hz	13.6
63 Hz	12.9
80 Hz	18.5
100 Hz	21.8
125 Hz	27.9
160 Hz	35.6
200 Hz	41.0
250 Hz	46.9
315 Hz	50.8
400 Hz	56.1
500 Hz	60.6
630 Hz	65.1
800 Hz	70.3
1000 Hz	74.1
1250 Hz	78.7
1600 Hz	80.8
2000 Hz	78.4
2500 Hz	62.4
3150 Hz	59.7
4000 Hz	64.0
5000 Hz	70.5
6300 Hz	76.7

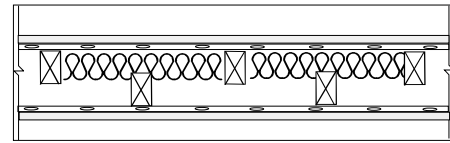
TL-93-224	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	resilient	stud	insulation	resilient	gypsum board
material	AX	G.P.	wood	G1	G.P.	AX
thickness mm	13	13	90	90	13	13
plate width			140			
spacing mm		610	406		610	
surface density kg/m <sup>2</sup>	10.0			1.1		9.9
linear density kg/m			1.2			
total weight kg	74.6	3.8	62.5	11.5	3.8	73.6
fastener spacing - edge mm	305					305
fastener spacing - field mm	305					305
fastener top track pattern						
fastener base track pattern						
stud attached to top track			yes			
double header						
orientation	horizontal	horizontal			horizontal	horizontal

TL-93-224  
STC 52



G16\_RC13(610)\_SWS140(406)\_GFB90\_RC13(610)\_G16

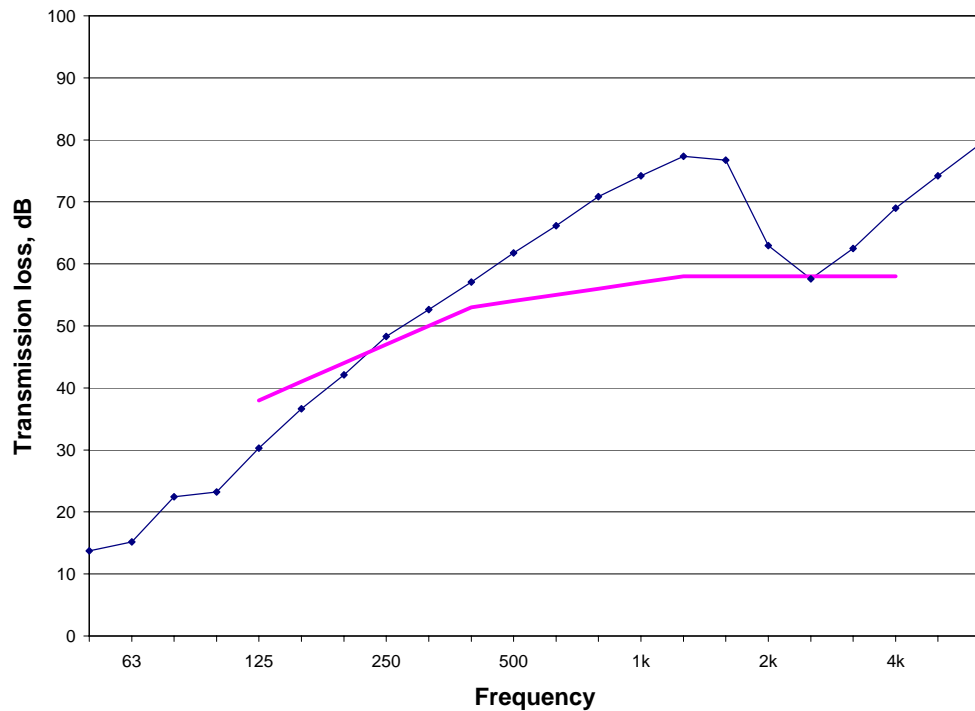
Element	Description:
1	single layer of 16 mm type X gypsum board
2	resilient channels at 610 mm on centre
3	90 mm wood studs at 406 mm on centre
4	90 mm of glass fibre insulation in cavity
5	resilient channels at 610 mm on centre
6	single layer of 16 mm type X gypsum board



TestID	TL-93-223
STC	54
50 Hz	13.7
63 Hz	15.2
80 Hz	22.4
100 Hz	23.2
125 Hz	30.3
160 Hz	36.6
200 Hz	42.1
250 Hz	48.3
315 Hz	52.6
400 Hz	57.0
500 Hz	61.8
630 Hz	66.1
800 Hz	70.8
1000 Hz	74.2
1250 Hz	77.3
1600 Hz	76.7
2000 Hz	63.0
2500 Hz	57.6
3150 Hz	62.5
4000 Hz	69.0
5000 Hz	74.2
6300 Hz	79.4

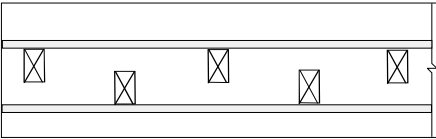
TL-93-223	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	resilient	stud	insulation	resilient	gypsum board
material	CX	G.P.	wood	G1	G.P.	CX
thickness mm	16	13	90	90	13	16
plate width			140			
spacing mm		610	406		610	
surface density kg/m <sup>2</sup>	11.2			1.1		11.1
linear density kg/m			1.2			
total weight kg	83.0	3.8	62.5	11.5	3.8	82.2
fastener spacing - edge mm	305					305
fastener spacing - field mm	305					305
fastener top track pattern						
fastener base track pattern						
stud attached to top track			yes			
double header						
orientation	horizontal	horizontal			horizontal	horizontal

TL-93-223  
STC 54



G16\_SWS140(406)\_G16

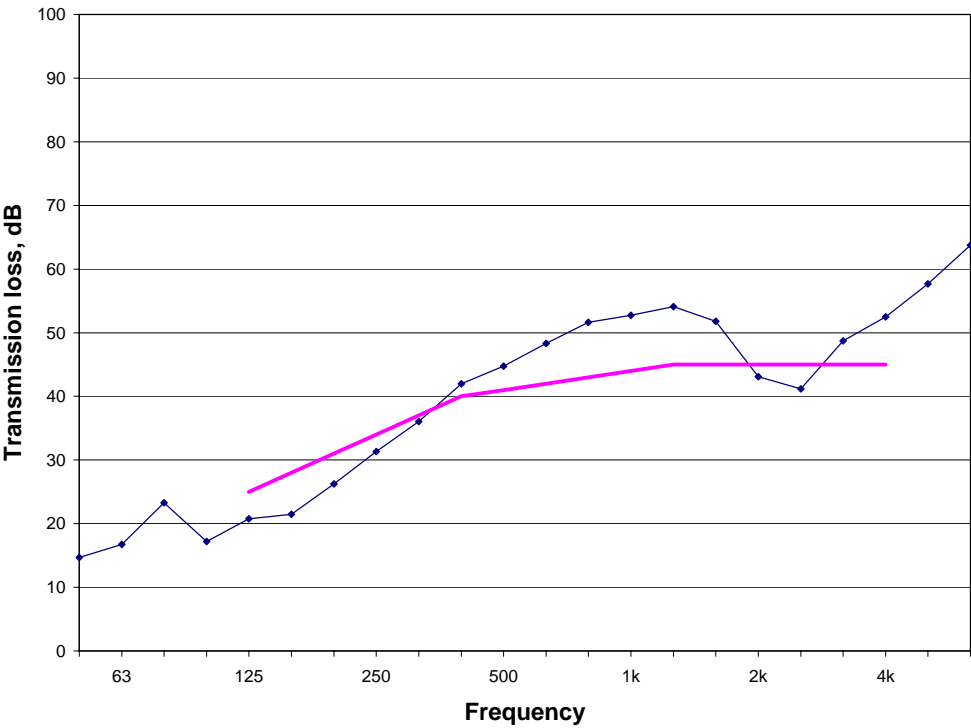
Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	single layer of 16 mm type X gypsum board



TestID	TL-93-254
STC	41
50 Hz	14.7
63 Hz	16.8
80 Hz	23.3
100 Hz	17.2
125 Hz	20.7
160 Hz	21.5
200 Hz	26.2
250 Hz	31.3
315 Hz	36.0
400 Hz	42.0
500 Hz	44.7
630 Hz	48.3
800 Hz	51.6
1000 Hz	52.8
1250 Hz	54.1
1600 Hz	51.8
2000 Hz	43.1
2500 Hz	41.2
3150 Hz	48.7
4000 Hz	52.5
5000 Hz	57.6
6300 Hz	63.7

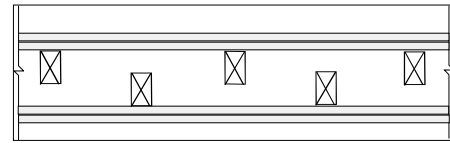
TL-93-254	element 1	element 2	element 3
type	gypsum board	stud	gypsum board
material	CX	wood	CX
thickness mm	16	90	16
plate width		140	
spacing mm		406	
surface density kg/m <sup>2</sup>	11.6		11.6
linear density kg/m		1.3	
total weight kg	86.2	65.7	86.0
fastener spacing - edge mm	406		406
fastener spacing - field mm	406		406
fastener top track pattern	c		c
fastener base track pattern	c		c
stud attached to top track		yes	
double header			
orientation	vertical		vertical

TL-93-254  
STC 41



2G13\_SWS140(406)\_2G13

Element	Description:
1	single layer of 13 mm gypsum board
2	single layer of 13 mm gypsum board
3	90 mm wood studs at 406 mm on centre
4	single layer of 13 mm gypsum board
5	single layer of 13 mm gypsum board

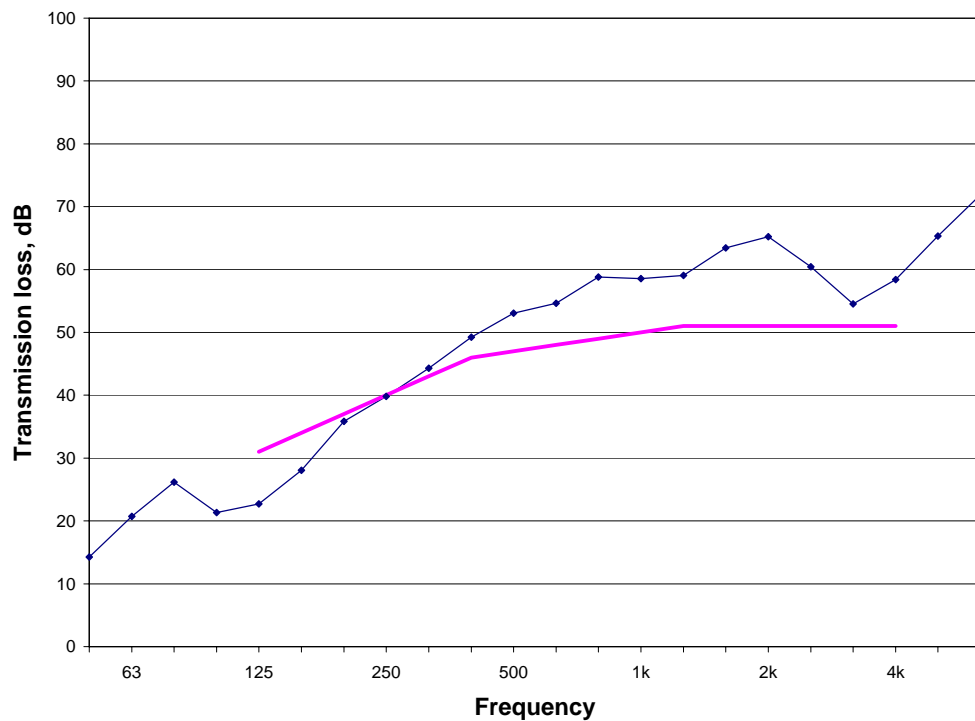


TestID	TL-93-246
STC	47
50 Hz	14.2
63 Hz	20.7
80 Hz	26.2
100 Hz	21.3
125 Hz	22.7
160 Hz	28.0
200 Hz	35.8
250 Hz	39.8
315 Hz	44.3
400 Hz	49.2
500 Hz	53.1
630 Hz	54.6
800 Hz	58.8
1000 Hz	58.6
1250 Hz	59.1
1600 Hz	63.4
2000 Hz	65.2
2500 Hz	60.4
3150 Hz	54.5
4000 Hz	58.4
5000 Hz	65.3
6300 Hz	71.9

TL-93-246

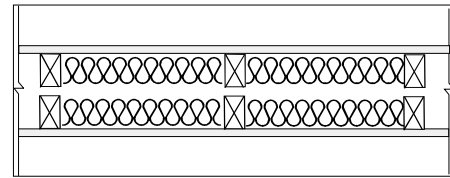
	element 1	element 2	element 3	element 4	element 5
type	gypsum board	gypsum board	stud	gypsum board	gypsum board
material	B	B	wood	B	B
thickness mm	13	13	90	13	13
plate width			140		
spacing mm			406		
surface density kg/m <sup>2</sup>	8.2	8.3		8.2	8.3
linear density kg/m			1.3		
total weight kg	61.1	61.7	65.7	61.2	61.4
fastener spacing - edge mm	406	610		610	406
fastener spacing - field mm	406	610		610	406
fastener top track pattern	c	c		c	c
fastener base track pattern	c	c		c	c
stud attached to top track			yes		
double header					
orientation	vertical	vertical		vertical	vertical

TL-93-246  
STC 47



G13\_WS90(406)\_AIR25\_WS90(406)\_GFB90\_G13

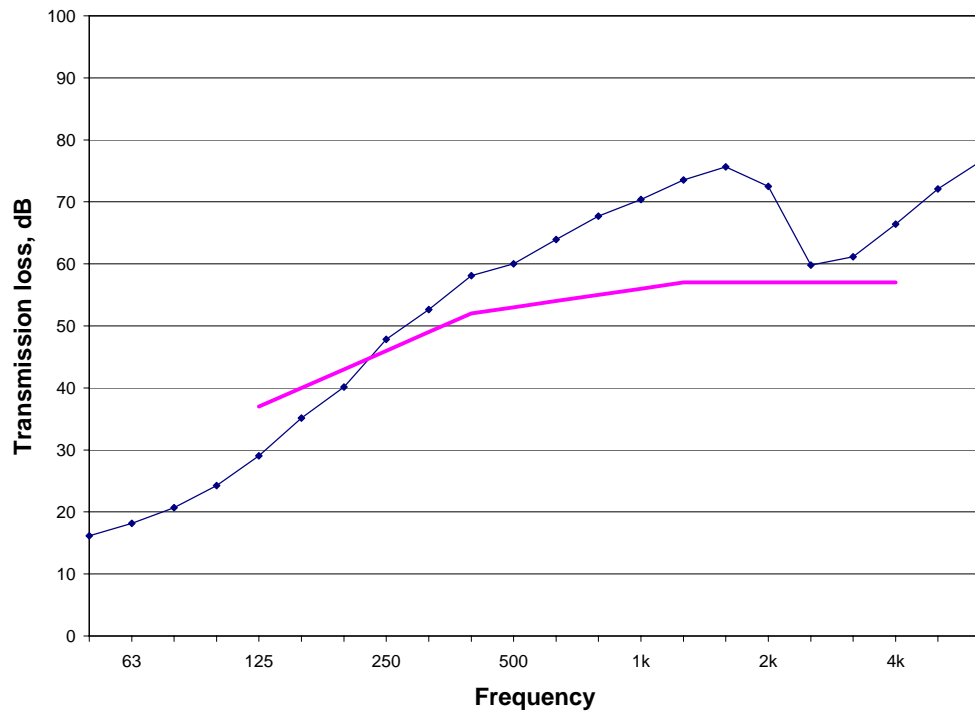
Element	Description:
1	single layer of 13 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	25 mm gap filled with air
4	90 mm wood studs at 406 mm on centre
5	90 mm of glass fibre insulation in cavity
6	single layer of 13 mm type X gypsum board



TestID	TL-93-279
STC	53
50 Hz	16.1
63 Hz	18.2
80 Hz	20.7
100 Hz	24.3
125 Hz	29.0
160 Hz	35.1
200 Hz	40.2
250 Hz	47.8
315 Hz	52.6
400 Hz	58.1
500 Hz	60.0
630 Hz	63.9
800 Hz	67.7
1000 Hz	70.4
1250 Hz	73.5
1600 Hz	75.6
2000 Hz	72.5
2500 Hz	59.8
3150 Hz	61.1
4000 Hz	66.4
5000 Hz	72.1
6300 Hz	76.5

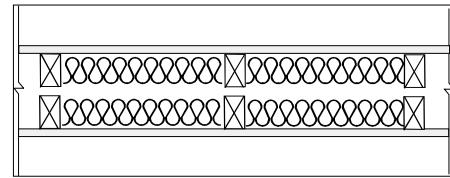
TL-93-279	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	stud	gap	stud	insulation	gypsum board
material	AX	wood	air	wood	G1	AX
thickness mm	13	90	25	90	90	13
gauge						
spacing mm		406		406		
surface density kg/m <sup>2</sup>	10.0				1.1	10.0
linear density kg/m		1.4		1.4		
total weight kg	74.1	37.0		37.9	7.1	74.6
fastener spacing - edge mm	406					406
fastener spacing - field mm	406					406
fastener top track pattern	c					c
fastener base track pattern	c					c
stud attached to top track		yes		yes		
double header						
orientation	vertical					vertical

TL-93-279  
STC 53



G13\_WS90(406)\_GFB65\_AIR25\_WS90(406)\_GFB65\_G13

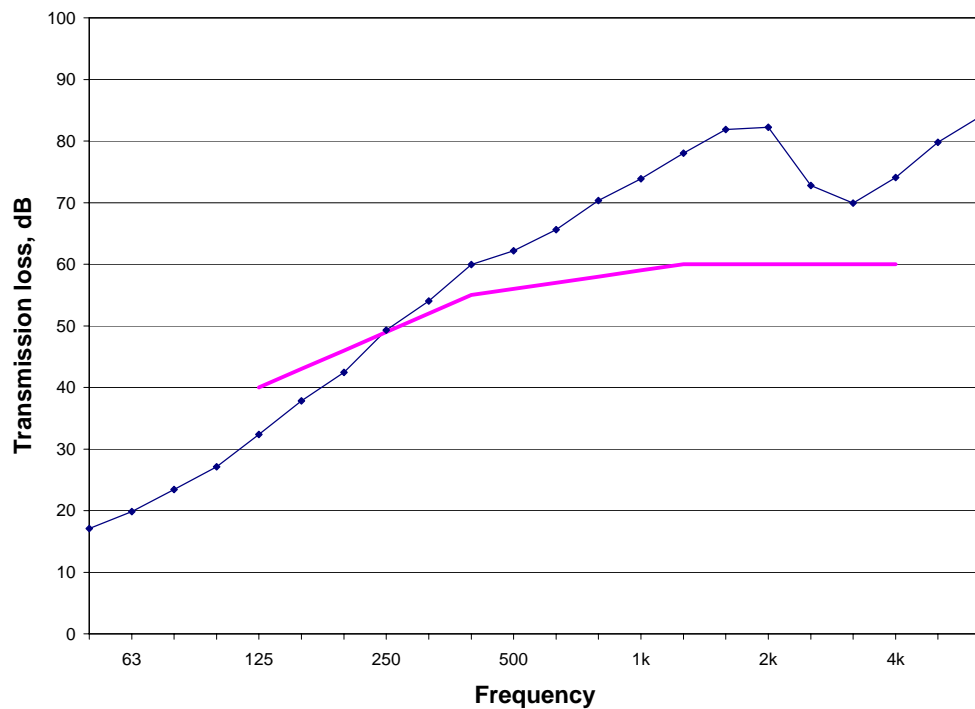
Element	Description:
1	single layer of 13 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	65 mm of glass fibre insulation in cavity
4	25 mm gap filled with air
5	90 mm wood studs at 406 mm on centre
6	65 mm of glass fibre insulation in cavity
7	single layer of 13 mm type X gypsum board



TestID	TL-93-277
STC	56
50 Hz	17.1
63 Hz	19.8
80 Hz	23.4
100 Hz	27.1
125 Hz	32.4
160 Hz	37.8
200 Hz	42.4
250 Hz	49.3
315 Hz	54.0
400 Hz	59.9
500 Hz	62.2
630 Hz	65.6
800 Hz	70.4
1000 Hz	73.9
1250 Hz	78.0
1600 Hz	81.9
2000 Hz	82.2
2500 Hz	72.8
3150 Hz	69.9
4000 Hz	74.1
5000 Hz	79.8
6300 Hz	84.0

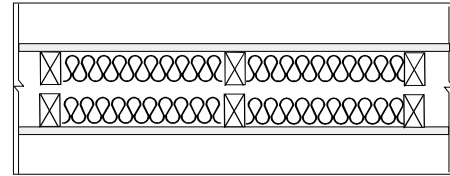
TL-93-277	element 1	element 2	element 3	element 4	element 5	element 6	element 7
type	gypsum board	stud	insulation	gap	stud	insulation	gypsum board
material	AX	wood	G1	air	wood	G1	AX
thickness mm	13	90	65	25	90	65	13
gauge							
spacing mm		406			406		
surface density kg/m <sup>2</sup>	10.0		0.8			0.8	10.0
linear density kg/m		1.4			1.4		
total weight kg	74.6	37.0	6.0		37.9	6.0	74.6
fastener spacing - edge mm	406						406
fastener spacing - field mm	406						406
fastener top track pattern	c						c
fastener base track pattern	c						c
stud attached to top track		yes			yes		
double header							
orientation	vertical						vertical

TL-93-277  
STC 56



G13\_WS90(406)\_GFB90\_AIR25\_WS90(406)\_GFB90\_G13

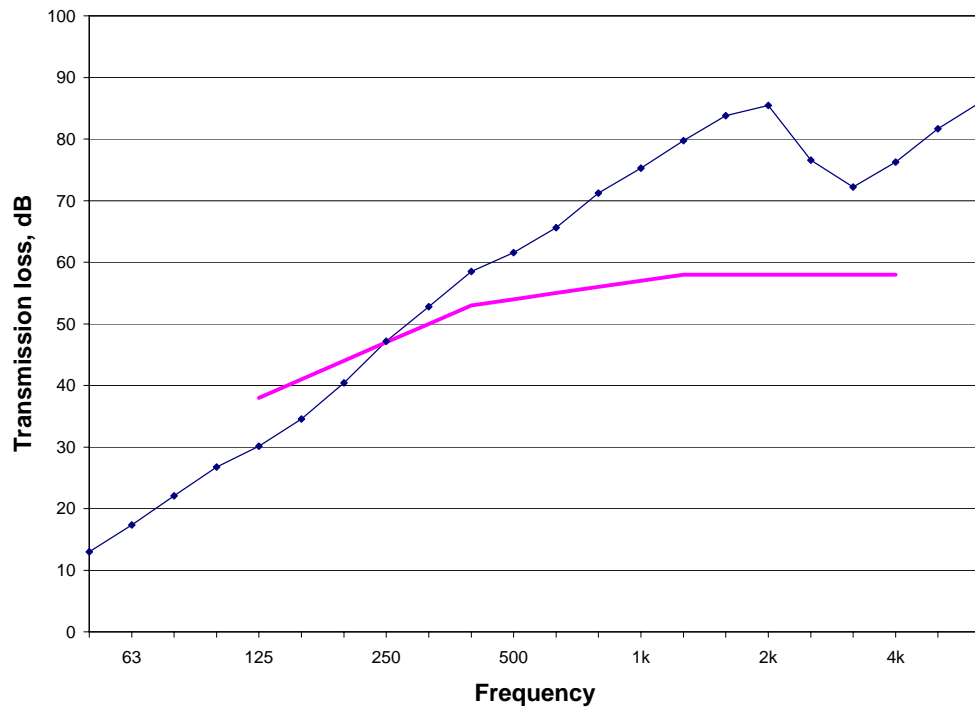
Element	Description:
1	single layer of 13 mm gypsum board
2	90 mm wood studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	25 mm gap filled with air
5	90 mm wood studs at 406 mm on centre
6	90 mm of glass fibre insulation in cavity
7	single layer of 13 mm gypsum board



TestID	TL-93-273
STC	54
50 Hz	13.0
63 Hz	17.4
80 Hz	22.1
100 Hz	26.8
125 Hz	30.1
160 Hz	34.5
200 Hz	40.4
250 Hz	47.2
315 Hz	52.8
400 Hz	58.5
500 Hz	61.6
630 Hz	65.6
800 Hz	71.2
1000 Hz	75.3
1250 Hz	79.8
1600 Hz	83.8
2000 Hz	85.5
2500 Hz	76.6
3150 Hz	72.2
4000 Hz	76.2
5000 Hz	81.6
6300 Hz	86.0

TL-93-273	element 1	element 2	element 3	element 4	element 5	element 6	element 7
type	gypsum board	stud	insulation	gap	stud	insulation	gypsum board
material	B	wood	G1	air	wood	G1	B
thickness mm	13	90	90	25	90	90	13
gauge							
spacing mm		406			406		
surface density kg/m <sup>2</sup>	8.4		1.1			1.1	8.2
linear density kg/m		1.4			1.4		
total weight kg	62.1	37.0	7.1		37.9	7.1	61.1
fastener spacing - edge mm	406						406
fastener spacing - field mm	406						406
fastener top track pattern	c						c
fastener base track pattern	c						c
stud attached to top track		yes			yes		
double header							
orientation	vertical						vertical

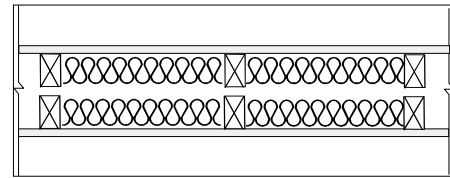
TL-93-273  
STC 54





G13\_WS90(406)\_GFB90\_AIR25\_WS90(406)\_GFB90\_G13

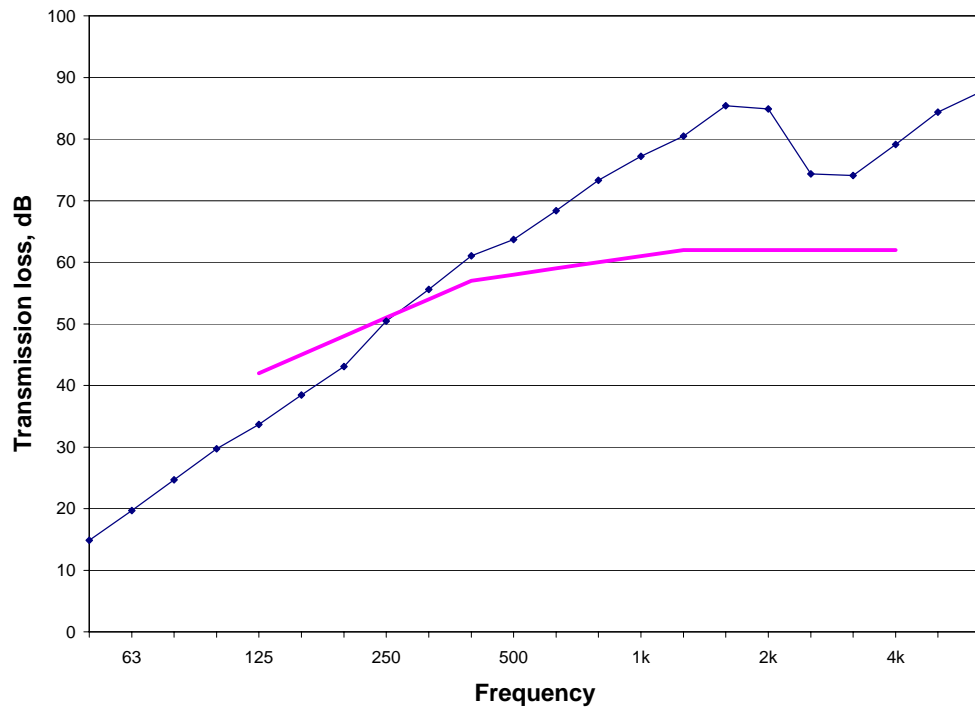
Element	Description:
1	single layer of 13 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	25 mm gap filled with air
5	90 mm wood studs at 406 mm on centre
6	90 mm of glass fibre insulation in cavity
7	single layer of 13 mm type X gypsum board



TestID	TL-93-270
STC	58
50 Hz	14.9
63 Hz	19.7
80 Hz	24.7
100 Hz	29.7
125 Hz	33.7
160 Hz	38.5
200 Hz	43.1
250 Hz	50.4
315 Hz	55.6
400 Hz	61.1
500 Hz	63.7
630 Hz	68.4
800 Hz	73.3
1000 Hz	77.2
1250 Hz	80.5
1600 Hz	85.4
2000 Hz	84.9
2500 Hz	74.4
3150 Hz	74.1
4000 Hz	79.1
5000 Hz	84.4
6300 Hz	87.6

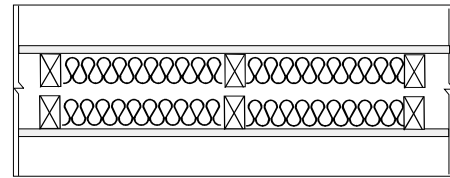
TL-93-270	element 1	element 2	element 3	element 4	element 5	element 6	element 7
type	gypsum board	stud	insulation	gap	stud	insulation	gypsum board
material	AX	wood	G1	air	wood	G1	AX
thickness mm	13	90	90	25	90	90	13
gauge							
spacing mm		406			406		
surface density kg/m <sup>2</sup>	10.2		1.1			1.1	10.2
linear density kg/m		1.4			1.4		
total weight kg	75.7	37.0	7.1		37.9	7.1	76.1
fastener spacing - edge mm	406						406
fastener spacing - field mm	406						406
fastener top track pattern	c						c
fastener base track pattern	c						c
stud attached to top track		yes			yes		
double header							
orientation	vertical						vertical

TL-93-270  
STC 58



G13\_WS90(406)\_GFB90\_AIR25\_WS90(406)\_GFB90\_G13

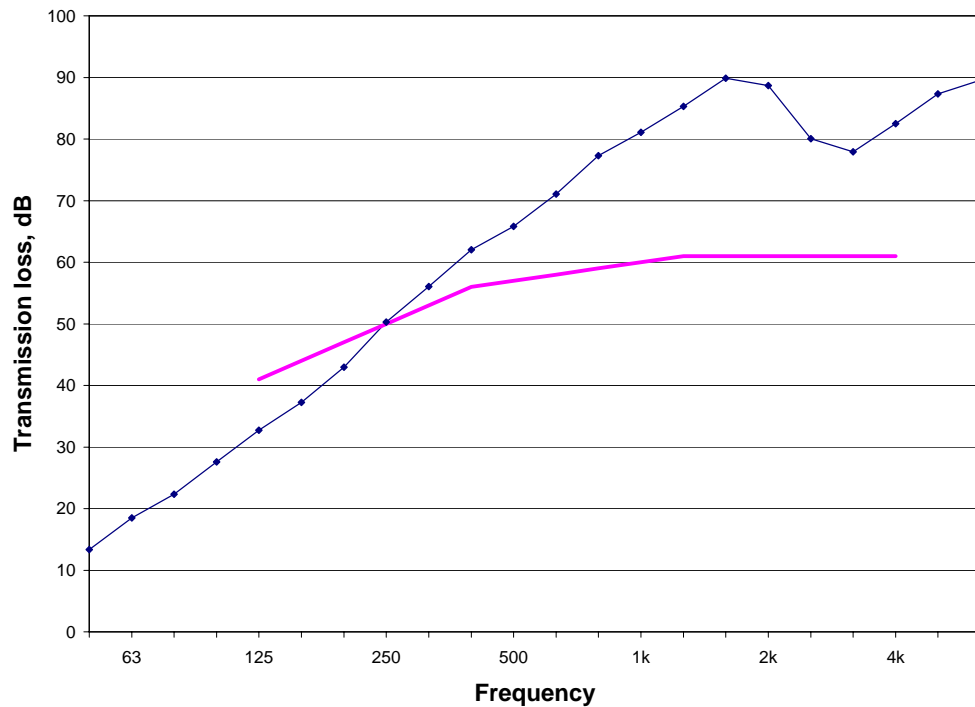
Element	Description:
1	single layer of 13 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	25 mm gap filled with air
5	90 mm wood studs at 406 mm on centre
6	90 mm of glass fibre insulation in cavity
7	single layer of 13 mm type X gypsum board



TestID	TL-93-278
STC	57
50 Hz	13.3
63 Hz	18.5
80 Hz	22.3
100 Hz	27.6
125 Hz	32.7
160 Hz	37.2
200 Hz	42.9
250 Hz	50.3
315 Hz	56.0
400 Hz	62.0
500 Hz	65.8
630 Hz	71.1
800 Hz	77.3
1000 Hz	81.1
1250 Hz	85.3
1600 Hz	89.8
2000 Hz	88.7
2500 Hz	80.0
3150 Hz	77.9
4000 Hz	82.5
5000 Hz	87.3
6300 Hz	89.6

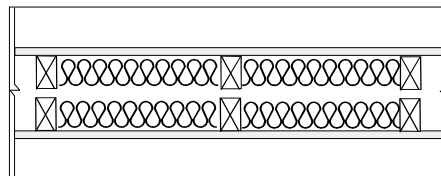
TL-93-278	element 1	element 2	element 3	element 4	element 5	element 6	element 7
type	gypsum board	stud	insulation	gap	stud	insulation	gypsum board
material	AX	wood	G2	air	wood	G2	AX
thickness mm	13	90	90	25	90	90	13
gauge							
spacing mm		406			406		
surface density kg/m <sup>2</sup>	10.0		1.4			1.4	10.0
linear density kg/m		1.4			1.4		
total weight kg	74.6	37.0	9.7		37.9	9.7	74.6
fastener spacing - edge mm	406						406
fastener spacing - field mm	406						406
fastener top track pattern	c						c
fastener base track pattern	c						c
stud attached to top track		yes			yes		
double header							
orientation	vertical						vertical

TL-93-278  
STC 57



G13\_WS90(610)\_AIR25\_WS90(610)\_CFL110\_G13

Element	Description:
1	single layer of 13 mm gypsum board
2	90 mm wood studs at 610 mm on centre
3	25 mm gap filled with air
4	90 mm wood studs at 610 mm on centre
5	110 mm of blown cellulose fibre insulation in cavity
6	single layer of 13 mm type X gypsum board

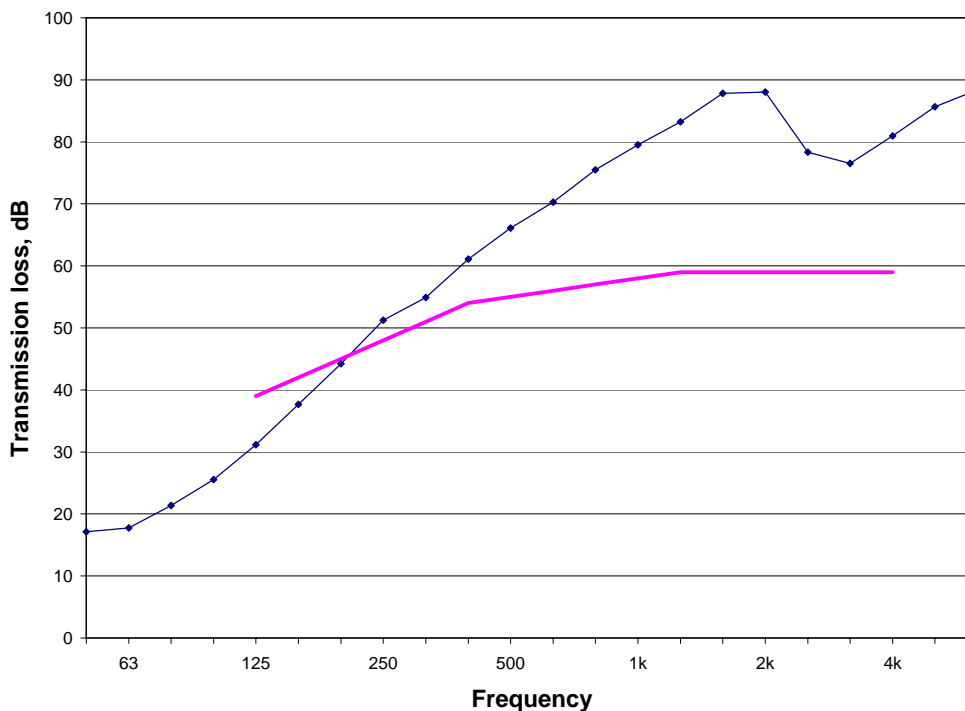


TestID	TL-93-296
STC	55
50 Hz	17.1
63 Hz	17.7
80 Hz	21.4
100 Hz	25.5
125 Hz	31.1
160 Hz	37.7
200 Hz	44.2
250 Hz	51.2
315 Hz	54.9
400 Hz	61.1
500 Hz	66.1
630 Hz	70.3
800 Hz	75.5
1000 Hz	79.5
1250 Hz	83.2
1600 Hz	87.8
2000 Hz	88.0
2500 Hz	78.3
3150 Hz	76.5
4000 Hz	81.0
5000 Hz	85.7
6300 Hz	88.4

TL-93-296

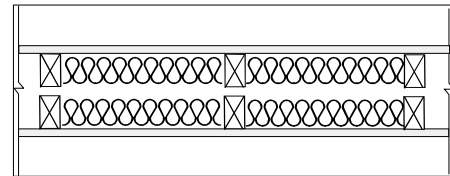
	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	stud	gap	stud	insulation	gypsum board
material	Ax	wood	air	wood	C2	AX
thickness mm	13	90	25	90	110	13
gauge						
spacing mm		610		610		
surface density kg/m <sup>2</sup>	10.2				6.4	10.2
linear density kg/m		1.2		1.2		
total weight kg	76.0	27.9		27.9	41.9	75.7
fastener spacing - edge mm	305					305
fastener spacing - field mm	305					305
fastener top track pattern	a					a
fastener base track pattern	a					a
stud attached to top track		yes		yes		
double header						
orientation	vertical					vertical

TL-93-296  
STC 55



G13\_WS90(610)\_AIR25\_WS90(610)\_CFS60\_G13

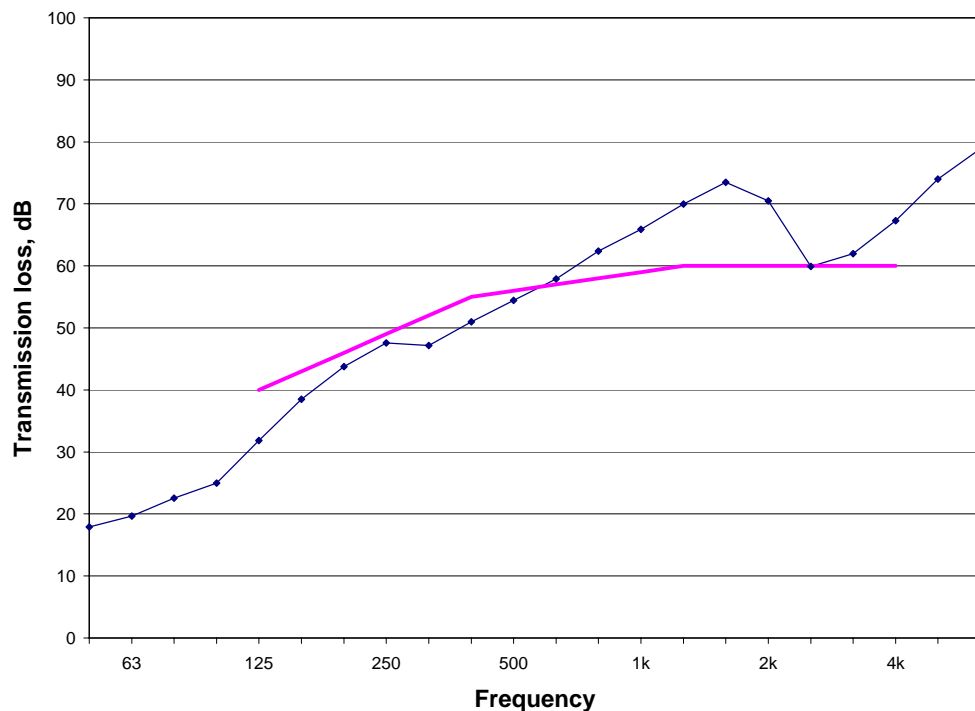
Element	Description:
1	single layer of 13 mm type X gypsum board
2	90 mm wood studs at 610 mm on centre
3	25 mm gap filled with air
4	90 mm wood studs at 610 mm on centre
5	60 mm of sprayed cellulose fibre insulation in cavity
6	single layer of 13 mm type X gypsum board



TestID	TL-93-356
STC	56
50 Hz	17.9
63 Hz	19.7
80 Hz	22.6
100 Hz	25.0
125 Hz	31.9
160 Hz	38.5
200 Hz	43.7
250 Hz	47.6
315 Hz	47.2
400 Hz	51.0
500 Hz	54.4
630 Hz	57.9
800 Hz	62.4
1000 Hz	65.9
1250 Hz	70.0
1600 Hz	73.5
2000 Hz	70.5
2500 Hz	59.9
3150 Hz	62.0
4000 Hz	67.3
5000 Hz	74.0
6300 Hz	78.9

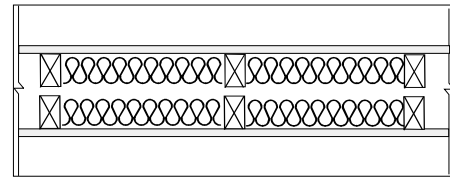
TL-93-356	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	stud	gap	stud	insulation	gypsum board
material	AX	wood	air	wood	C1	AX
thickness mm	13	90	25	90	60	13
gauge						
spacing mm		610		610		
surface density kg/m <sup>2</sup>	10.1				2.4	10.4
linear density kg/m		1.3		1.2		
total weight kg	74.8	28.8		27.6	17.6	77.3
fastener spacing - edge mm	305					305
fastener spacing - field mm	305					305
fastener top track pattern	a					a
fastener base track pattern	a					a
stud attached to top track		yes		yes		
double header						
orientation	vertical					vertical

TL-93-356  
STC 56



G13\_WS90(610)\_GFB90\_AIR25\_WS90(610)\_GFB90\_G13

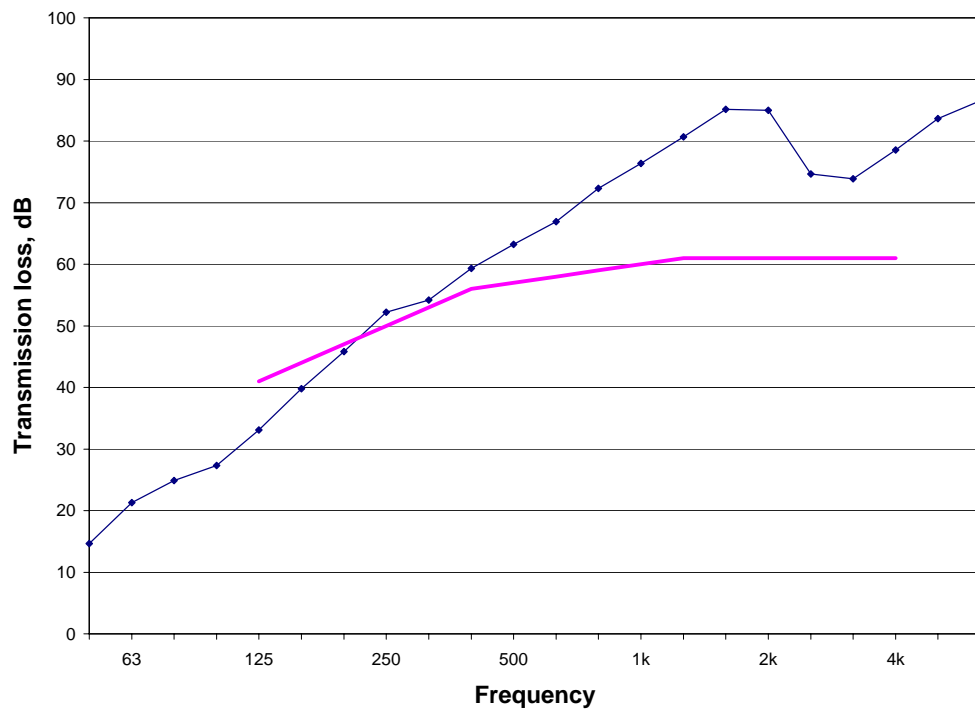
Element	Description:
1	single layer of 13 mm type X gypsum board
2	90 mm wood studs at 610 mm on centre
3	90 mm of glass fibre insulation in cavity
4	25 mm gap filled with air
5	90 mm wood studs at 610 mm on centre
6	90 mm of glass fibre insulation in cavity
7	single layer of 13 mm type X gypsum board



TestID	TL-93-288
STC	57
50 Hz	14.7
63 Hz	21.3
80 Hz	24.9
100 Hz	27.3
125 Hz	33.1
160 Hz	39.8
200 Hz	45.8
250 Hz	52.2
315 Hz	54.2
400 Hz	59.3
500 Hz	63.2
630 Hz	66.9
800 Hz	72.3
1000 Hz	76.4
1250 Hz	80.7
1600 Hz	85.2
2000 Hz	85.0
2500 Hz	74.7
3150 Hz	73.9
4000 Hz	78.6
5000 Hz	83.7
6300 Hz	86.5

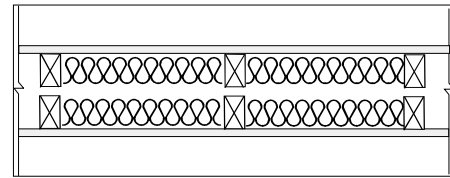
TL-93-288	element 1	element 2	element 3	element 4	element 5	element 6	element 7
type	gypsum board	stud	insulation	gap	stud	insulation	gypsum board
material	AX	wood	G1	air	wood	G1	AX
thickness mm	13	90	90	25	90	90	13
gauge							
spacing mm		610			610		
surface density kg/m <sup>2</sup>	10.3		1.2			1.2	10.1
linear density kg/m		1.2			1.2		
total weight kg	76.3	27.9	7.6		27.9	7.6	75.2
fastener spacing - edge mm	305						305
fastener spacing - field mm	305						305
fastener top track pattern	a						a
fastener base track pattern	a						a
stud attached to top track		yes			yes		
double header							
orientation	vertical						vertical

TL-93-288  
STC 57



G13\_WS90(610)\_GFB90\_AIR25\_WS90(610)\_GFB90\_G13

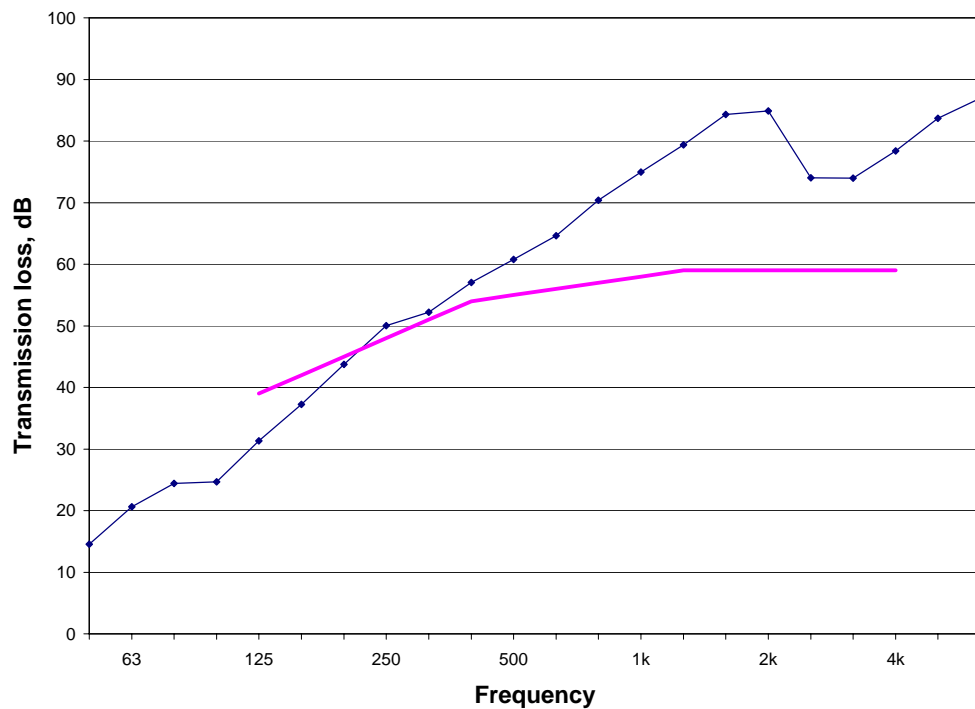
Element	Description:
1	single layer of 13 mm type X gypsum board
2	90 mm wood studs at 610 mm on centre
3	90 mm of glass fibre insulation in cavity
4	25 mm gap filled with air
5	90 mm wood studs at 610 mm on centre
6	90 mm of glass fibre insulation in cavity
7	single layer of 13 mm type X gypsum board



TestID	TL-93-289
STC	55
50 Hz	14.5
63 Hz	20.6
80 Hz	24.4
100 Hz	24.7
125 Hz	31.3
160 Hz	37.3
200 Hz	43.7
250 Hz	50.0
315 Hz	52.2
400 Hz	57.0
500 Hz	60.8
630 Hz	64.6
800 Hz	70.4
1000 Hz	75.0
1250 Hz	79.4
1600 Hz	84.3
2000 Hz	84.9
2500 Hz	74.0
3150 Hz	74.0
4000 Hz	78.4
5000 Hz	83.7
6300 Hz	87.0

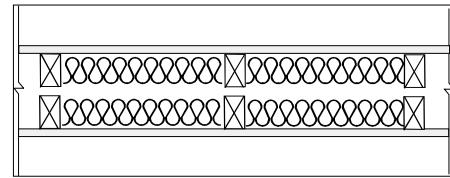
TL-93-289	element 1	element 2	element 3	element 4	element 5	element 6	element 7
type	gypsum board	stud	insulation	gap	stud	insulation	gypsum board
material	CX	wood	G1	air	wood	G1	CX
thickness mm	13	90	90	25	90	90	13
gauge							
spacing mm		610			610		
surface density kg/m <sup>2</sup>	8.6		1.1			1.1	8.7
linear density kg/m		1.2			1.2		
total weight kg	64.2	27.9	8.0		27.9	8.0	65.0
fastener spacing - edge mm	305						305
fastener spacing - field mm	305						305
fastener top track pattern	a						a
fastener base track pattern	a						a
stud attached to top track		yes			yes		
double header							
orientation	vertical						vertical

TL-93-289  
STC 55



G13\_WS90(610)\_GFB90\_AIR25\_WS90(610)\_GFB90\_G13

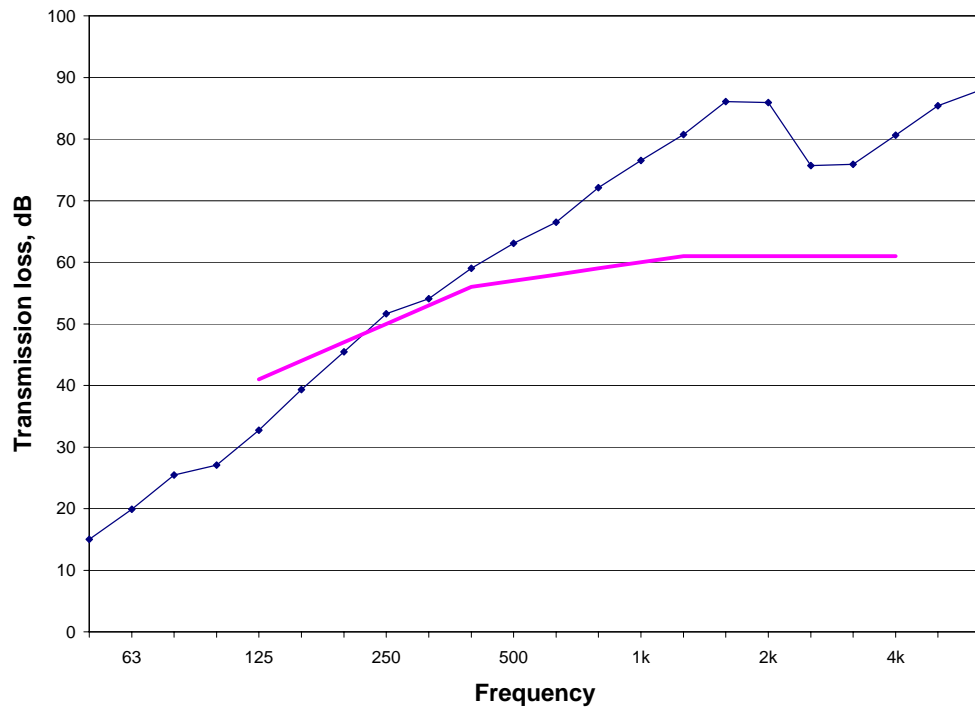
Element	Description:
1	single layer of 13 mm type X gypsum board
2	90 mm wood studs at 610 mm on centre
3	90 mm of glass fibre insulation in cavity
4	25 mm gap filled with air
5	90 mm wood studs at 610 mm on centre
6	90 mm of glass fibre insulation in cavity
7	single layer of 13 mm type X gypsum board



TestID	TL-93-290
STC	57
50 Hz	15.0
63 Hz	19.9
80 Hz	25.4
100 Hz	27.1
125 Hz	32.7
160 Hz	39.3
200 Hz	45.4
250 Hz	51.6
315 Hz	54.1
400 Hz	59.0
500 Hz	63.0
630 Hz	66.5
800 Hz	72.1
1000 Hz	76.5
1250 Hz	80.7
1600 Hz	86.1
2000 Hz	85.9
2500 Hz	75.7
3150 Hz	75.9
4000 Hz	80.6
5000 Hz	85.4
6300 Hz	88.0

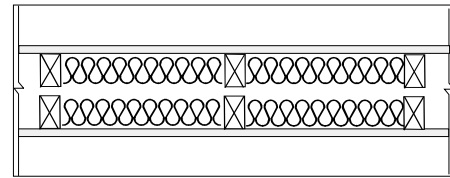
TL-93-290	element 1	element 2	element 3	element 4	element 5	element 6	element 7
type	gypsum board	stud	insulation	gap	stud	insulation	gypsum board
material	BX	wood	G1	air	wood	G1	BX
thickness mm	13	90	90	25	90	90	13
gauge							
spacing mm		610			610		
surface density kg/m <sup>2</sup>	9.8		1.1			1.1	10.1
linear density kg/m		1.2			1.2		
total weight kg	72.9	27.9	8.0		27.9	8.0	74.7
fastener spacing - edge mm	305						305
fastener spacing - field mm	305						305
fastener top track pattern	a						a
fastener base track pattern	a						a
stud attached to top track		yes			yes		
double header							
orientation	vertical						vertical

TL-93-290  
STC 57



G13\_WS90(610)\_GFB90\_AIR25\_WS90(610)\_GFB90\_G13

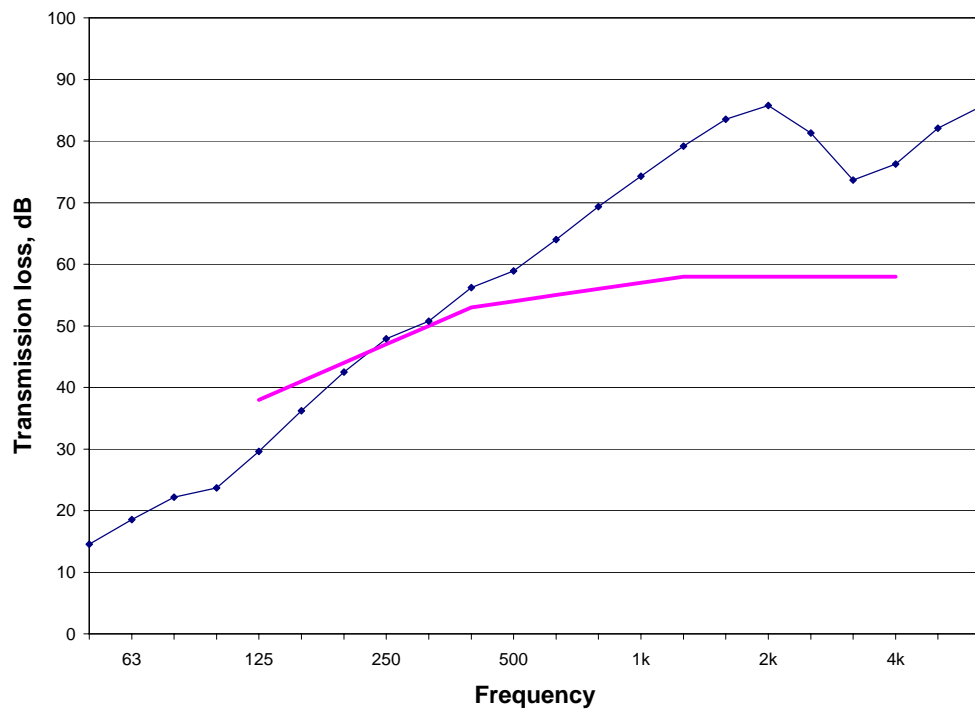
Element	Description:
1	single layer of 13 mm gypsum board
2	90 mm wood studs at 610 mm on centre
3	90 mm of glass fibre insulation in cavity
4	25 mm gap filled with air
5	90 mm wood studs at 610 mm on centre
6	90 mm of glass fibre insulation in cavity
7	single layer of 13 mm gypsum board



TestID	TL-93-284
STC	54
50 Hz	14.5
63 Hz	18.5
80 Hz	22.2
100 Hz	23.7
125 Hz	29.6
160 Hz	36.2
200 Hz	42.5
250 Hz	47.9
315 Hz	50.7
400 Hz	56.2
500 Hz	58.9
630 Hz	64.0
800 Hz	69.3
1000 Hz	74.3
1250 Hz	79.2
1600 Hz	83.6
2000 Hz	85.8
2500 Hz	81.3
3150 Hz	73.7
4000 Hz	76.2
5000 Hz	82.1
6300 Hz	85.6

TL-93-284	element 1	element 2	element 3	element 4	element 5	element 6	element 7
type	gypsum board	stud	insulation	gap	stud	insulation	gypsum board
material	B	wood	G1	air	wood	G1	B
thickness mm	13	90	90	25	90	90	13
gauge							
spacing mm		610			610		
surface density kg/m <sup>2</sup>	8.3		1.2			1.2	8.3
linear density kg/m		1.2			1.2		
total weight kg	61.4	27.9	7.6		27.9	7.6	61.8
fastener spacing - edge mm	305						305
fastener spacing - field mm	305						305
fastener top track pattern	a						a
fastener base track pattern	a						a
stud attached to top track		yes			yes		
double header							
orientation	vertical						vertical

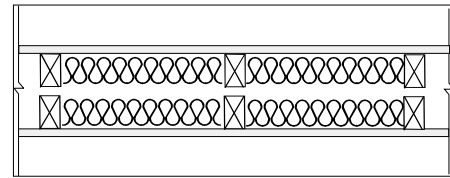
TL-93-284  
STC 54





G13\_WS90(610)\_GFB90\_AIR25\_WS90(610)\_GFB90\_G13

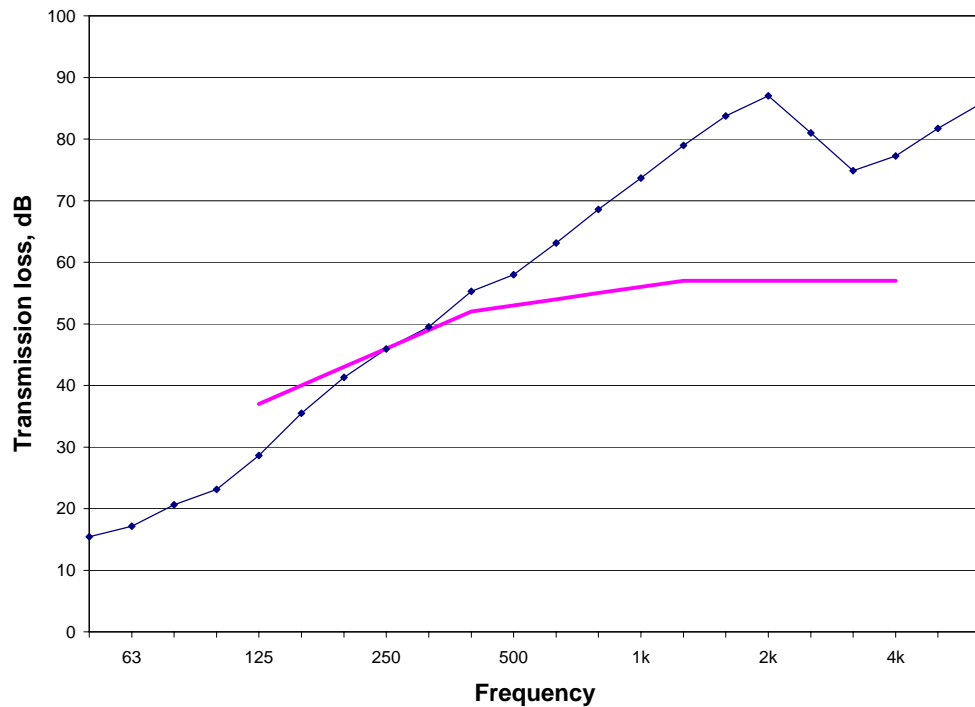
Element	Description:
1	single layer of 13 mm gypsum board
2	90 mm wood studs at 610 mm on centre
3	90 mm of glass fibre insulation in cavity
4	25 mm gap filled with air
5	90 mm wood studs at 610 mm on centre
6	90 mm of glass fibre insulation in cavity
7	single layer of 13 mm gypsum board



TestID	TL-93-291
STC	53
50 Hz	15.4
63 Hz	17.2
80 Hz	20.6
100 Hz	23.1
125 Hz	28.6
160 Hz	35.5
200 Hz	41.3
250 Hz	45.9
315 Hz	49.5
400 Hz	55.3
500 Hz	58.0
630 Hz	63.1
800 Hz	68.5
1000 Hz	73.6
1250 Hz	79.0
1600 Hz	83.8
2000 Hz	87.0
2500 Hz	81.0
3150 Hz	74.9
4000 Hz	77.2
5000 Hz	81.7
6300 Hz	85.7

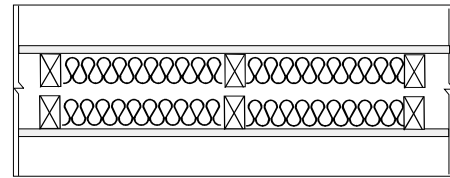
TL-93-291	element 1	element 2	element 3	element 4	element 5	element 6	element 7
type	gypsum board	stud	insulation	gap	stud	insulation	gypsum board
material	A	wood	G1	air	wood	G1	A
thickness mm	13	90	90	25	90	90	13
gauge							
spacing mm		610			610		
surface density kg/m <sup>2</sup>	7.7		1.1			1.1	7.7
linear density kg/m		1.2			1.2		
total weight kg	56.9	27.9	8.0		27.9	8.0	56.9
fastener spacing - edge mm	305						305
fastener spacing - field mm	305						305
fastener top track pattern	a						a
fastener base track pattern	a						a
stud attached to top track		yes			yes		
double header							
orientation	vertical						vertical

TL-93-291  
STC 53



G13\_WS90(610)\_GFB90\_AIR25\_WS90(610)\_GFB90\_G13

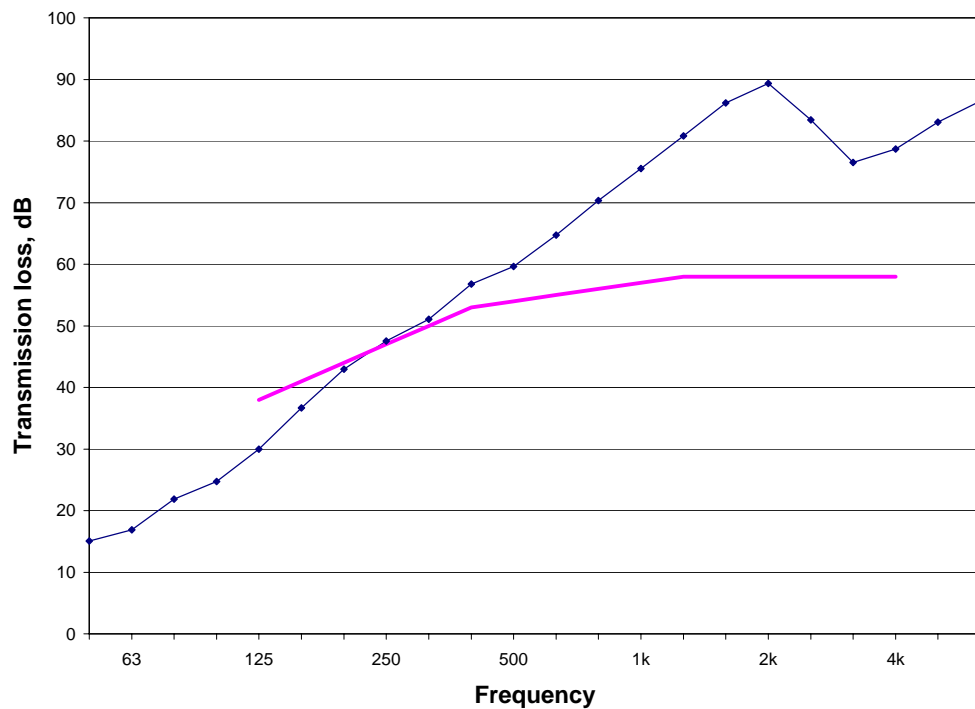
Element	Description:
1	single layer of 13 mm gypsum board
2	90 mm wood studs at 610 mm on centre
3	90 mm of glass fibre insulation in cavity
4	25 mm gap filled with air
5	90 mm wood studs at 610 mm on centre
6	90 mm of glass fibre insulation in cavity
7	single layer of 13 mm gypsum board



TestID	TL-93-294
STC	54
50 Hz	15.1
63 Hz	16.9
80 Hz	21.9
100 Hz	24.7
125 Hz	30.0
160 Hz	36.7
200 Hz	43.0
250 Hz	47.5
315 Hz	51.1
400 Hz	56.8
500 Hz	59.6
630 Hz	64.7
800 Hz	70.3
1000 Hz	75.5
1250 Hz	80.8
1600 Hz	86.2
2000 Hz	89.3
2500 Hz	83.4
3150 Hz	76.5
4000 Hz	78.7
5000 Hz	83.0
6300 Hz	86.5

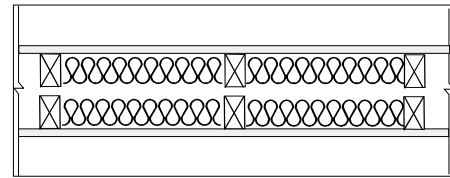
TL-93-294	element 1	element 2	element 3	element 4	element 5	element 6	element 7
type	gypsum board	stud	insulation	gap	stud	insulation	gypsum board
material	C	wood	G1	air	wood	G1	C
thickness mm	13	90	90	25	90	90	13
gauge							
spacing mm		610			610		
surface density kg/m <sup>2</sup>	8.0		1.1			1.1	8.1
linear density kg/m		1.2			1.2		
total weight kg	59.8	27.9	8.0		27.9	8.0	60.3
fastener spacing - edge mm	305						305
fastener spacing - field mm	305						305
fastener top track pattern	a						a
fastener base track pattern	a						a
stud attached to top track		yes			yes		
double header							
orientation	vertical						vertical

TL-93-294  
STC 54



G16\_WS90(406)\_AIR25\_WS90(406)\_GFB90\_G16

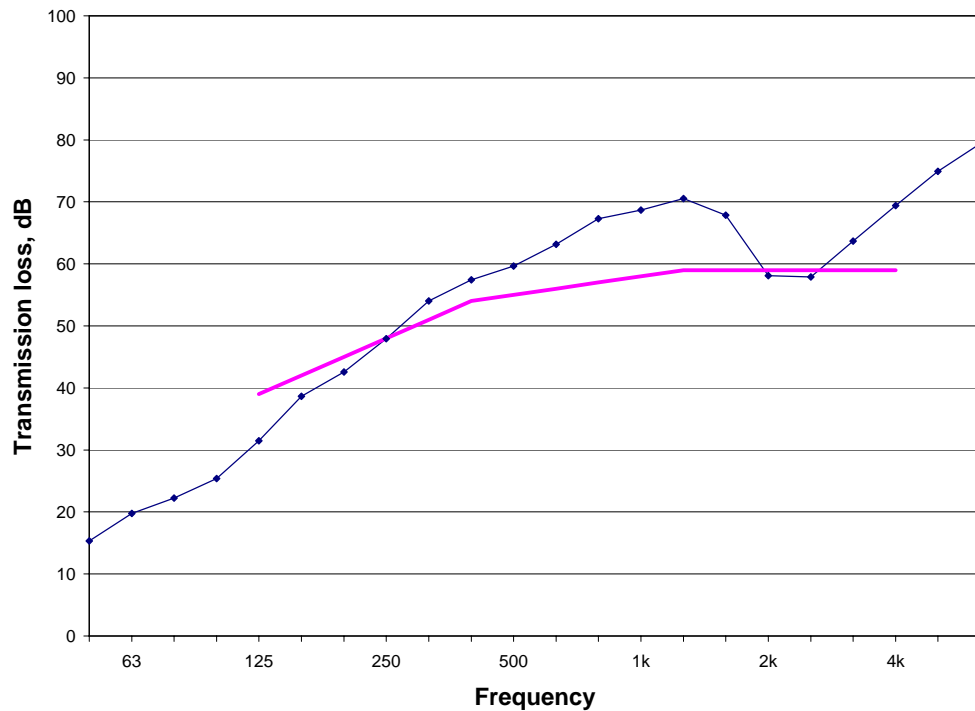
Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	25 mm gap filled with air
4	90 mm wood studs at 406 mm on centre
5	90 mm of glass fibre insulation in cavity
6	single layer of 16 mm type X gypsum board



TestID	TL-93-265
STC	55
50 Hz	15.3
63 Hz	19.7
80 Hz	22.2
100 Hz	25.4
125 Hz	31.5
160 Hz	38.6
200 Hz	42.6
250 Hz	47.9
315 Hz	54.0
400 Hz	57.5
500 Hz	59.7
630 Hz	63.2
800 Hz	67.3
1000 Hz	68.7
1250 Hz	70.5
1600 Hz	67.9
2000 Hz	58.1
2500 Hz	57.9
3150 Hz	63.7
4000 Hz	69.4
5000 Hz	74.9
6300 Hz	79.4

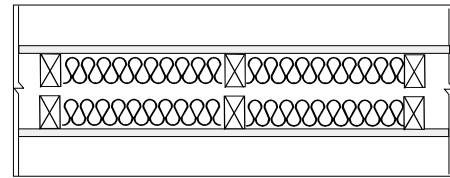
TL-93-265	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	stud	gap	stud	insulation	gypsum board
material	CX	wood	air	wood	G1	CX
thickness mm	16	90	25	90	90	16
gauge						
spacing mm		406		406		
surface density kg/m <sup>2</sup>	11.5				1.1	11.4
linear density kg/m		1.4		1.4		
total weight kg	85.6	37.0		37.9	7.1	84.4
fastener spacing - edge mm	406					406
fastener spacing - field mm	406					406
fastener top track pattern	c					c
fastener base track pattern	c					c
stud attached to top track		yes		yes		
double header						
orientation	vertical					vertical

TL-93-265  
STC 55



G16\_WS90(406)\_GFB65\_AIR25\_WS90(406)\_GFB65\_G16

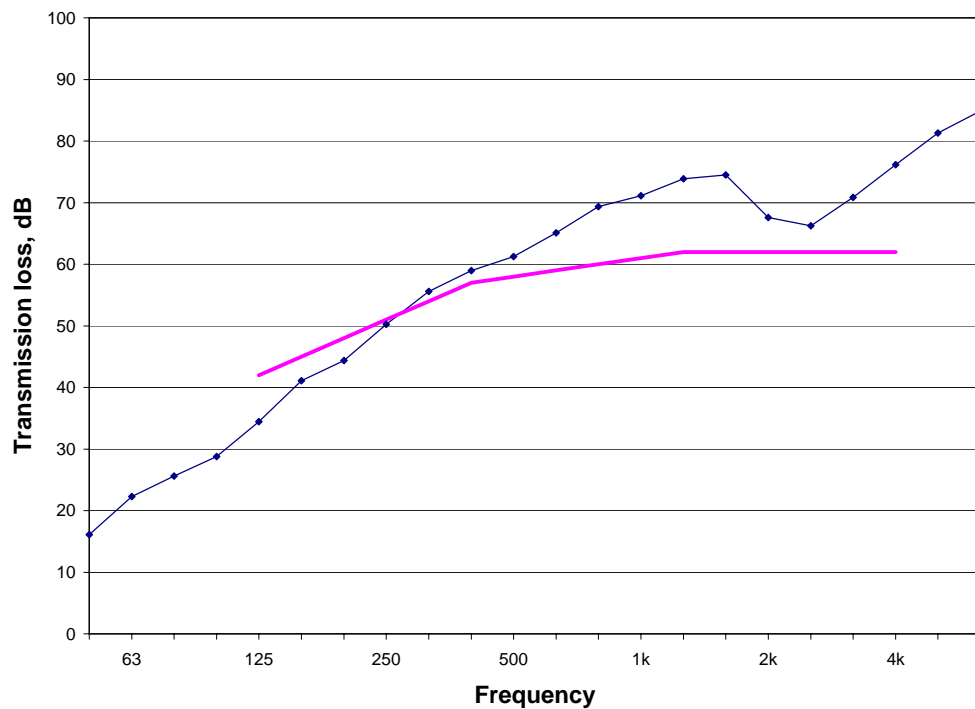
Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	65 mm of glass fibre insulation in cavity
4	25 mm gap filled with air
5	90 mm wood studs at 406 mm on centre
6	65 mm of glass fibre insulation in cavity
7	single layer of 16 mm type X gypsum board



TestID	TL-93-262
STC	58
50 Hz	16.1
63 Hz	22.3
80 Hz	25.6
100 Hz	28.8
125 Hz	34.4
160 Hz	41.1
200 Hz	44.4
250 Hz	50.2
315 Hz	55.6
400 Hz	59.0
500 Hz	61.2
630 Hz	65.1
800 Hz	69.4
1000 Hz	71.1
1250 Hz	73.9
1600 Hz	74.5
2000 Hz	67.6
2500 Hz	66.2
3150 Hz	70.9
4000 Hz	76.2
5000 Hz	81.3
6300 Hz	84.9

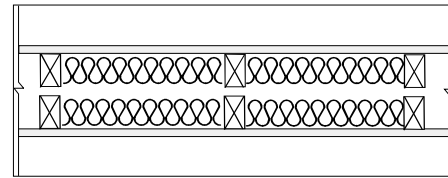
TL-93-262	element 1	element 2	element 3	element 4	element 5	element 6	element 7
type	gypsum board	stud	insulation	gap	stud	insulation	gypsum board
material	CX	wood	G1	air	wood	G1	CX
thickness mm	16	90	65	25	90	65	16
gauge							
spacing mm		406			406		
surface density kg/m <sup>2</sup>	11.6		0.8			0.8	11.4
linear density kg/m		1.4			1.4		
total weight kg	86.1	37.0	5.6		37.9	5.6	84.4
fastener spacing - edge mm	406						406
fastener spacing - field mm	406						406
fastener top track pattern	c						c
fastener base track pattern	c						c
stud attached to top track		yes			yes		
double header							
orientation	vertical						vertical

TL-93-262  
STC 58



G16\_WS90(406)\_GFB90\_AIR25\_WS90(406)\_GFB90\_G16

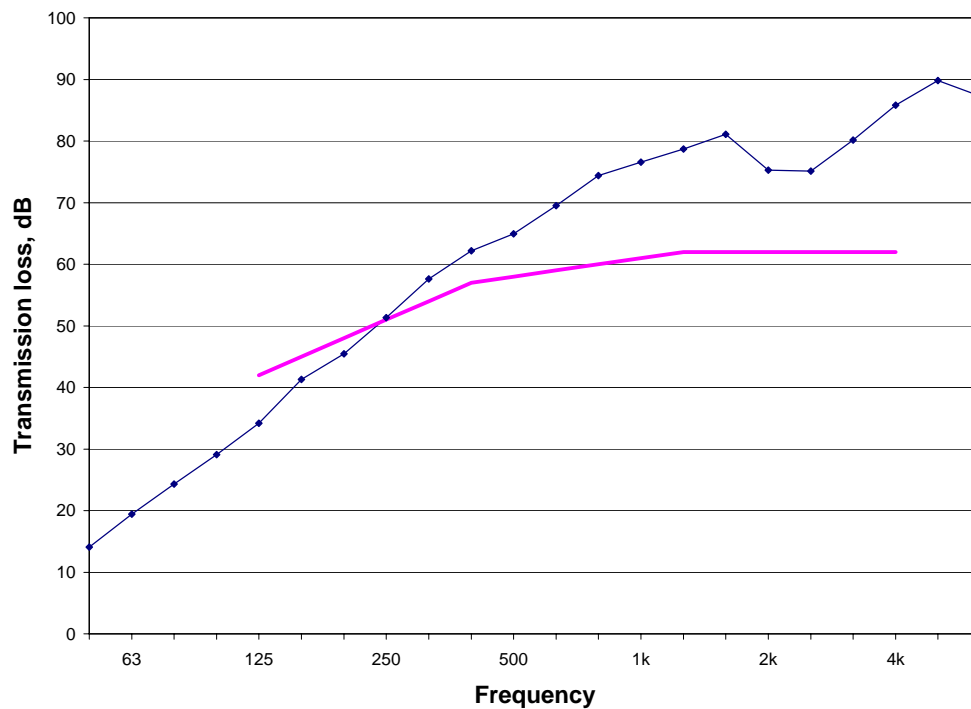
Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	25 mm gap filled with air
5	90 mm wood studs at 406 mm on centre
6	90 mm of glass fibre insulation in cavity
7	single layer of 16 mm type X gypsum board



TestID	TL-93-263
STC	58
50 Hz	14.1
63 Hz	19.4
80 Hz	24.3
100 Hz	29.1
125 Hz	34.2
160 Hz	41.3
200 Hz	45.4
250 Hz	51.3
315 Hz	57.6
400 Hz	62.2
500 Hz	65.0
630 Hz	69.5
800 Hz	74.4
1000 Hz	76.6
1250 Hz	78.7
1600 Hz	81.1
2000 Hz	75.3
2500 Hz	75.1
3150 Hz	80.1
4000 Hz	85.8
5000 Hz	89.8
6300 Hz	87.3

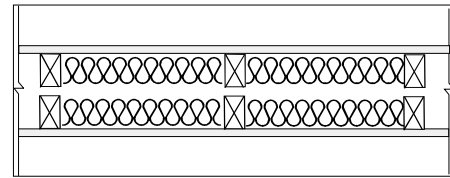
TL-93-263	element 1	element 2	element 3	element 4	element 5	element 6	element 7
type	gypsum board	stud	insulation	gap	stud	insulation	gypsum board
material	CX	wood	G2	air	wood	G2	CX
thickness mm	16	90	90	25	90	90	16
gauge							
spacing mm		406			406		
surface density kg/m <sup>2</sup>	11.4		1.4			1.4	11.4
linear density kg/m		1.4			1.4		
total weight kg	84.5	37.0	9.8		37.9	9.8	84.4
fastener spacing - edge mm	406						406
fastener spacing - field mm	406						406
fastener top track pattern	c						c
fastener base track pattern	c						c
stud attached to top track		yes			yes		
double header							
orientation	vertical						vertical

TL-93-263  
STC 58



G16\_WS90(406)\_GFB90\_AIR25\_WS90(406)\_GFB90\_G16

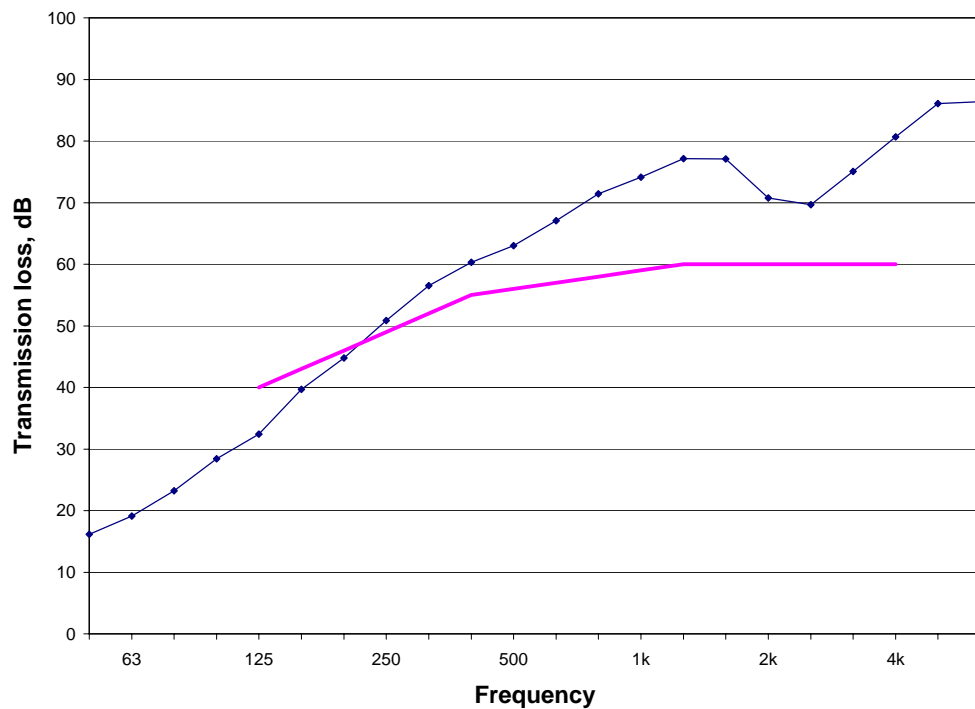
Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	25 mm gap filled with air
5	90 mm wood studs at 406 mm on centre
6	90 mm of glass fibre insulation in cavity
7	single layer of 16 mm type X gypsum board



TestID	TL-93-266
STC	56
50 Hz	16.2
63 Hz	19.1
80 Hz	23.2
100 Hz	28.4
125 Hz	32.4
160 Hz	39.7
200 Hz	44.8
250 Hz	50.8
315 Hz	56.5
400 Hz	60.3
500 Hz	63.0
630 Hz	67.1
800 Hz	71.4
1000 Hz	74.1
1250 Hz	77.1
1600 Hz	77.1
2000 Hz	70.7
2500 Hz	69.7
3150 Hz	75.1
4000 Hz	80.7
5000 Hz	86.1
6300 Hz	86.4

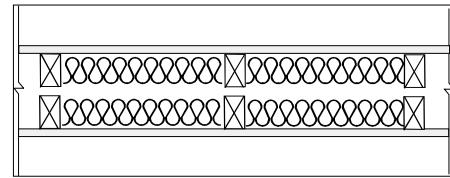
TL-93-266	element 1	element 2	element 3	element 4	element 5	element 6	element 7
type	gypsum board	stud	insulation	gap	stud	insulation	gypsum board
material	CX	wood	G1	air	wood	G1	CX
thickness mm	16	90	90	25	90	90	16
gauge							
spacing mm		406			406		
surface density kg/m <sup>2</sup>	11.5		1.1			1.1	11.4
linear density kg/m		1.4			1.4		
total weight kg	85.6	37.0	7.1		37.9	7.1	84.4
fastener spacing - edge mm	406						406
fastener spacing - field mm	406						406
fastener top track pattern	c						c
fastener base track pattern	c						c
stud attached to top track		yes			yes		
double header							
orientation	vertical						vertical

TL-93-266  
STC 56



G16\_WS90(406)\_MFB90\_AIR25\_WS90(406)\_MFB90\_G16

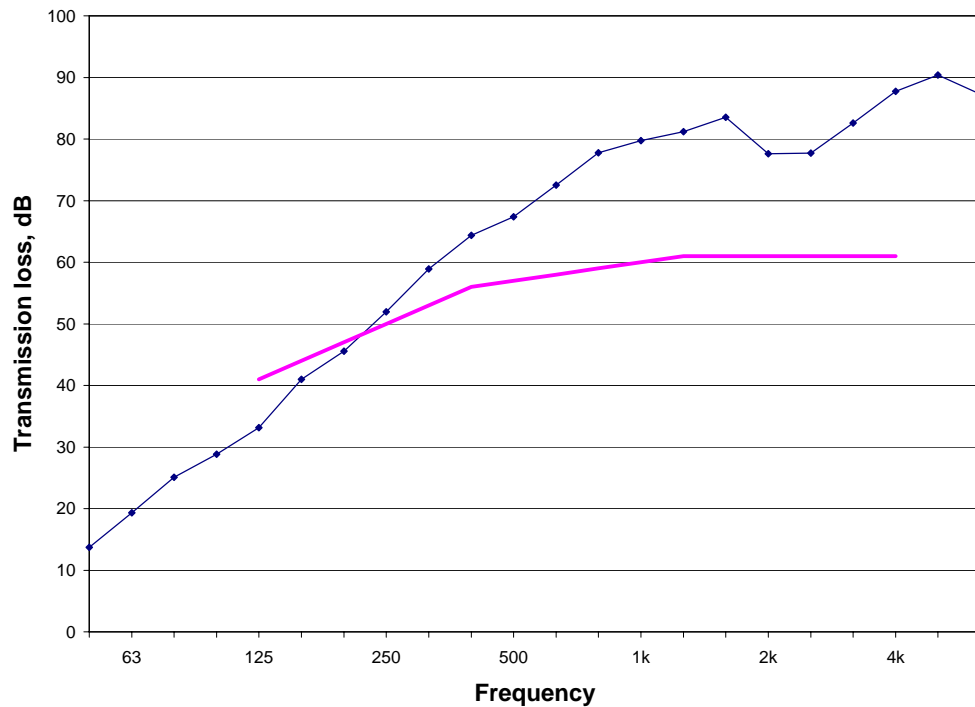
Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	90 mm of mineral fibre insulation in cavity
4	25 mm gap filled with air
5	90 mm wood studs at 406 mm on centre
6	90 mm of mineral fibre insulation in cavity
7	single layer of 16 mm type X gypsum board



TestID	TL-93-264
STC	57
50 Hz	13.7
63 Hz	19.3
80 Hz	25.1
100 Hz	28.8
125 Hz	33.2
160 Hz	41.0
200 Hz	45.5
250 Hz	51.9
315 Hz	58.9
400 Hz	64.4
500 Hz	67.4
630 Hz	72.5
800 Hz	77.8
1000 Hz	79.7
1250 Hz	81.2
1600 Hz	83.5
2000 Hz	77.6
2500 Hz	77.7
3150 Hz	82.6
4000 Hz	87.8
5000 Hz	90.4
6300 Hz	87.3

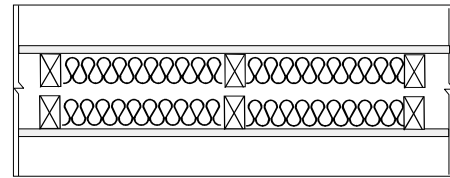
TL-93-264	element 1	element 2	element 3	element 4	element 5	element 6	element 7
type	gypsum board	stud	insulation	gap	stud	insulation	gypsum board
material	CX	wood	M1	air	wood	M1	CX
thickness mm	16	90	90	25	90	90	16
gauge							
spacing mm		406			406		
surface density kg/m <sup>2</sup>	11.4		2.9			2.9	11.4
linear density kg/m		1.4			1.4		
total weight kg	84.5	37.0	19.5		37.9	19.5	84.4
fastener spacing - edge mm	406						406
fastener spacing - field mm	406						406
fastener top track pattern	c						c
fastener base track pattern	c						c
stud attached to top track		yes			yes		
double header							
orientation	vertical						vertical

TL-93-264  
STC 57



G16\_WS90(610)\_AIR25\_WS90(610)\_CFL90\_G16

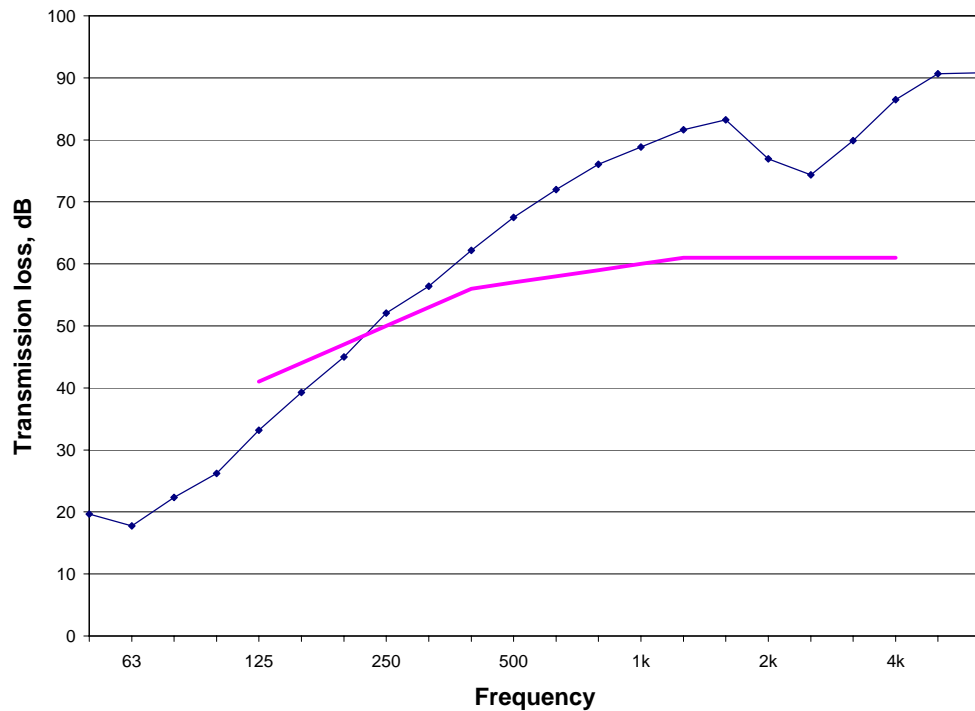
Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm wood studs at 610 mm on centre
3	25 mm gap filled with air
4	90 mm wood studs at 610 mm on centre
5	90 mm of blown cellulose fibre insulation in cavity
6	single layer of 16 mm type X gypsum board



TestID	TL-93-295
STC	57
50 Hz	19.7
63 Hz	17.7
80 Hz	22.4
100 Hz	26.2
125 Hz	33.2
160 Hz	39.3
200 Hz	45.0
250 Hz	52.1
315 Hz	56.4
400 Hz	62.2
500 Hz	67.5
630 Hz	72.0
800 Hz	76.1
1000 Hz	78.9
1250 Hz	81.6
1600 Hz	83.3
2000 Hz	76.9
2500 Hz	74.4
3150 Hz	79.9
4000 Hz	86.5
5000 Hz	90.7
6300 Hz	90.8

TL-93-295	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	stud	gap	stud	insulation	gypsum board
material	CX	wood	air	wood	C2	CX
thickness mm	16	90	25	90	90	16
gauge						
spacing mm		610		610		
surface density kg/m <sup>2</sup>	11.5				6.4	11.5
linear density kg/m		1.2		1.2		
total weight kg	85.8	27.9		27.9	41.9	85.4
fastener spacing - edge mm	305					305
fastener spacing - field mm	305					305
fastener top track pattern	a					a
fastener base track pattern	a					a
stud attached to top track		yes		yes		
double header						
orientation	vertical					vertical

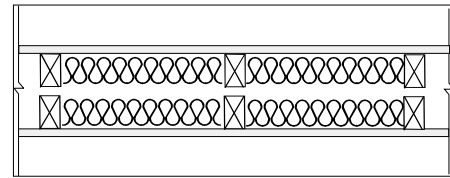
TL-93-295  
STC 57





G16\_WS90(610)\_AIR25\_WS90(610)\_CFS60\_G16

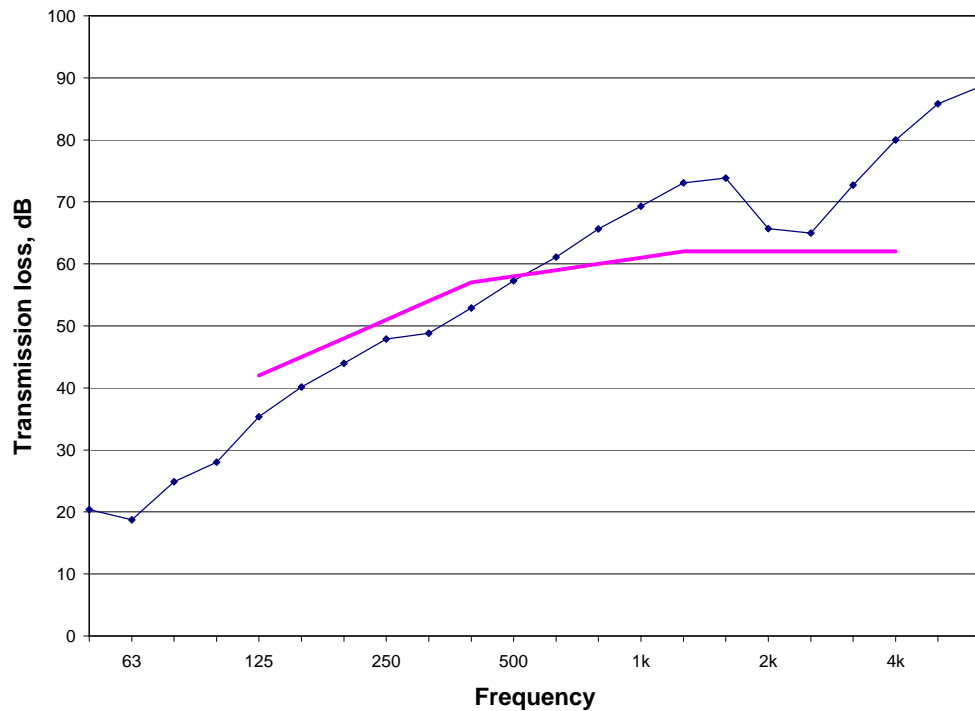
Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm wood studs at 610 mm on centre
3	25 mm gap filled with air
4	90 mm wood studs at 610 mm on centre
5	60 mm of sprayed cellulose fibre insulation in cavity
6	single layer of 16 mm type X gypsum board



TestID	TL-93-311
STC	58
50 Hz	20.4
63 Hz	18.7
80 Hz	24.9
100 Hz	28.0
125 Hz	35.4
160 Hz	40.1
200 Hz	43.9
250 Hz	47.9
315 Hz	48.8
400 Hz	52.9
500 Hz	57.3
630 Hz	61.1
800 Hz	65.6
1000 Hz	69.3
1250 Hz	73.1
1600 Hz	73.8
2000 Hz	65.7
2500 Hz	65.0
3150 Hz	72.7
4000 Hz	80.0
5000 Hz	85.8
6300 Hz	88.6

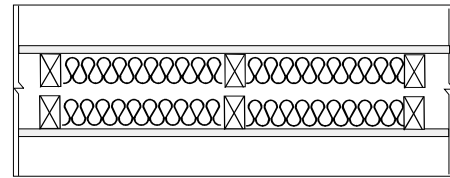
TL-93-311	element 1	element 2	element 3	element 4	element 5	element 6
type	gypsum board	stud	gap	stud	insulation	gypsum board
material	CX	wood	air	wood	C1	CX
thickness mm	16	90	25	90	60	16
gauge						
spacing mm		610		610		
surface density kg/m <sup>2</sup>	11.4				3.9	11.6
linear density kg/m		1.3		1.2		
total weight kg	84.9	28.8		27.6	27.3	86.0
fastener spacing - edge mm	305					305
fastener spacing - field mm	305					305
fastener top track pattern	a					a
fastener base track pattern	a					a
stud attached to top track		yes		yes		
double header						
orientation	vertical					vertical

TL-93-311  
STC 58



G16\_WS90(610)\_GFB90\_AIR25\_WS90(610)\_GFB90\_G16

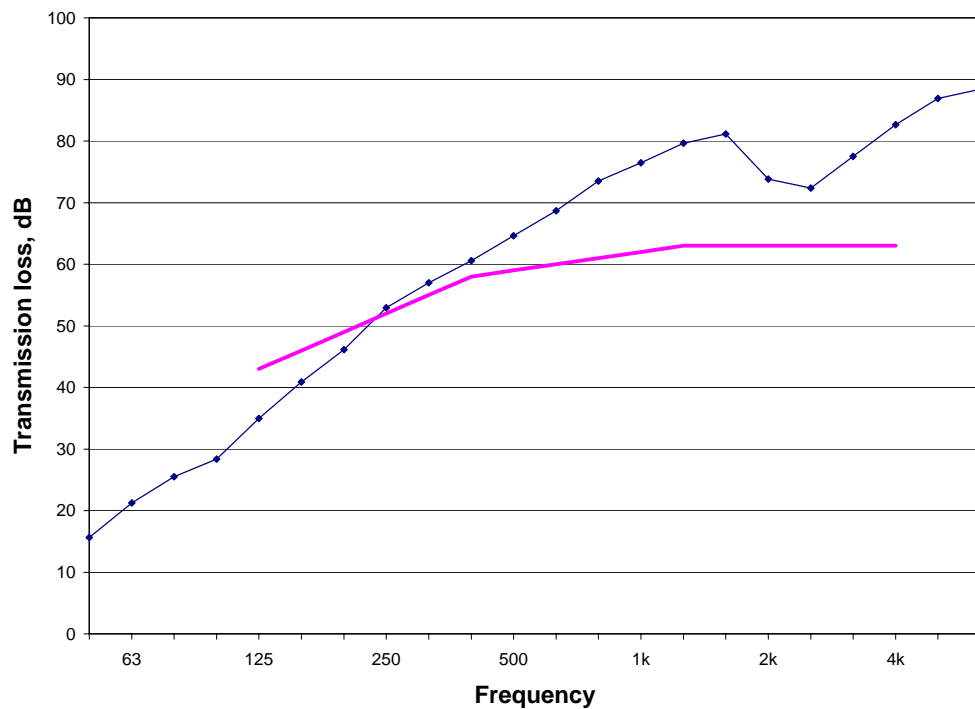
Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm wood studs at 610 mm on centre
3	90 mm of glass fibre insulation in cavity
4	25 mm gap filled with air
5	90 mm wood studs at 610 mm on centre
6	90 mm of glass fibre insulation in cavity
7	single layer of 16 mm type X gypsum board



TestID	TL-93-281
STC	59
50 Hz	15.6
63 Hz	21.2
80 Hz	25.5
100 Hz	28.4
125 Hz	35.0
160 Hz	40.9
200 Hz	46.1
250 Hz	52.9
315 Hz	57.0
400 Hz	60.6
500 Hz	64.6
630 Hz	68.7
800 Hz	73.5
1000 Hz	76.4
1250 Hz	79.6
1600 Hz	81.1
2000 Hz	73.8
2500 Hz	72.4
3150 Hz	77.5
4000 Hz	82.7
5000 Hz	86.9
6300 Hz	88.4

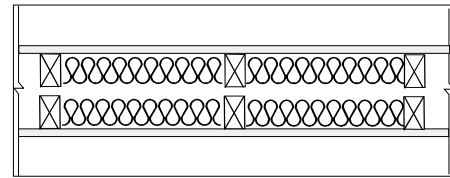
TL-93-281	element 1	element 2	element 3	element 4	element 5	element 6	element 7
type	gypsum board	stud	insulation	gap	stud	insulation	gypsum board
material	CX	wood	G1	air	wood	G1	CX
thickness mm	16	90	90	25	90	90	16
gauge							
spacing mm		610			610		
surface density kg/m <sup>2</sup>	11.5		1.2			1.2	11.4
linear density kg/m		1.2			1.2		
total weight kg	85.3	27.9	7.6		27.9	7.6	84.5
fastener spacing - edge mm	305						305
fastener spacing - field mm	305						305
fastener top track pattern	a						a
fastener base track pattern	a						a
stud attached to top track		yes			yes		
double header							
orientation	vertical						vertical

TL-93-281  
STC 59



G16\_WS90(610)\_GFB90\_AIR25\_WS90(610)\_GFB90\_G16

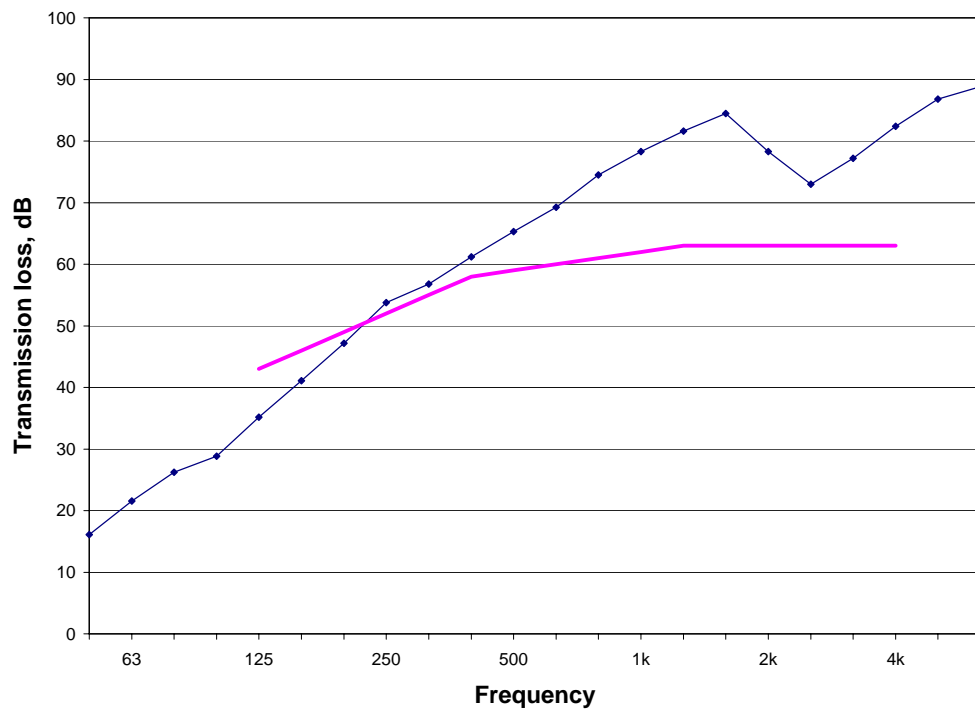
Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm wood studs at 610 mm on centre
3	90 mm of glass fibre insulation in cavity
4	25 mm gap filled with air
5	90 mm wood studs at 610 mm on centre
6	90 mm of glass fibre insulation in cavity
7	single layer of 16 mm type X gypsum board



TestID	TL-93-292
STC	59
50 Hz	16.1
63 Hz	21.6
80 Hz	26.2
100 Hz	28.8
125 Hz	35.2
160 Hz	41.1
200 Hz	47.1
250 Hz	53.7
315 Hz	56.8
400 Hz	61.2
500 Hz	65.3
630 Hz	69.3
800 Hz	74.5
1000 Hz	78.3
1250 Hz	81.6
1600 Hz	84.5
2000 Hz	78.3
2500 Hz	73.0
3150 Hz	77.2
4000 Hz	82.4
5000 Hz	86.8
6300 Hz	88.8

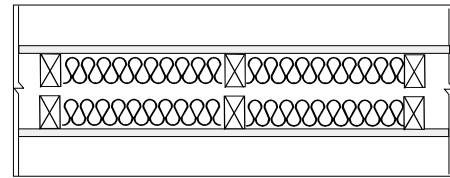
TL-93-292	element 1	element 2	element 3	element 4	element 5	element 6	element 7
type	gypsum board	stud	insulation	gap	stud	insulation	gypsum board
material	AX	wood	G1	air	wood	G1	AX
thickness mm	16	90	90	25	90	90	16
gauge							
spacing mm		610			610		
surface density kg/m <sup>2</sup>	11.5		1.1			1.1	11.5
linear density kg/m		1.2			1.2		
total weight kg	85.1	27.9	8.0		27.9	8.0	85.8
fastener spacing - edge mm	305						305
fastener spacing - field mm	305						305
fastener top track pattern	a						a
fastener base track pattern	a						a
stud attached to top track		yes			yes		
double header							
orientation	vertical						vertical

TL-93-292  
STC 59



G16\_WS90(610)\_GFB90\_AIR25\_WS90(610)\_GFB90\_G16

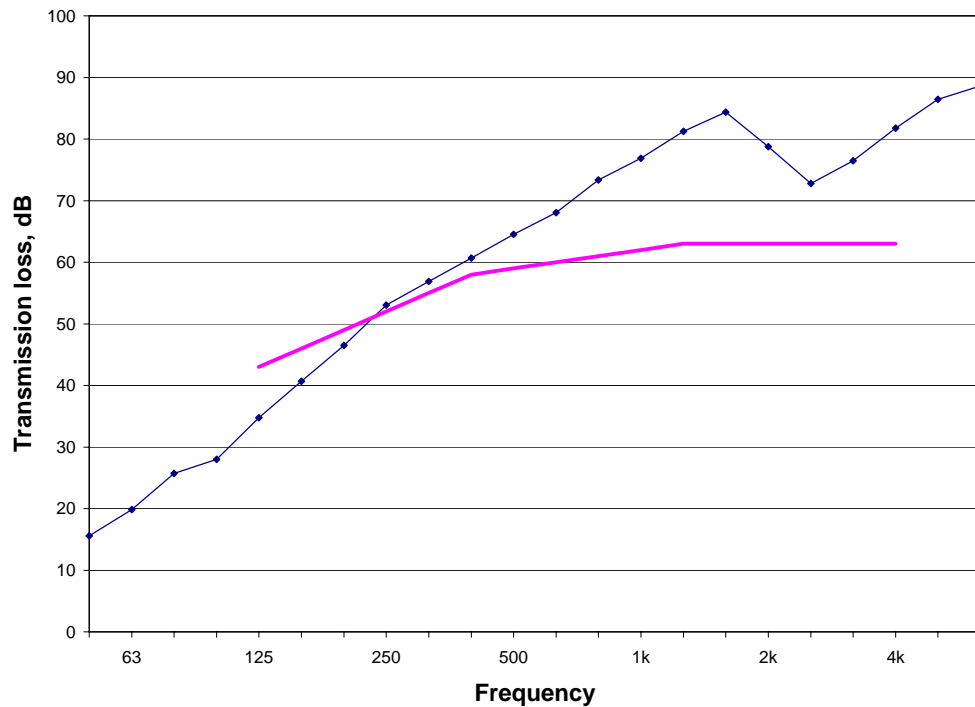
Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm wood studs at 610 mm on centre
3	90 mm of glass fibre insulation in cavity
4	25 mm gap filled with air
5	90 mm wood studs at 610 mm on centre
6	90 mm of glass fibre insulation in cavity
7	single layer of 16 mm type X gypsum board



TestID	TL-93-293
STC	59
50 Hz	15.6
63 Hz	19.9
80 Hz	25.7
100 Hz	28.0
125 Hz	34.8
160 Hz	40.7
200 Hz	46.5
250 Hz	53.0
315 Hz	56.9
400 Hz	60.7
500 Hz	64.5
630 Hz	68.0
800 Hz	73.4
1000 Hz	76.9
1250 Hz	81.2
1600 Hz	84.4
2000 Hz	78.7
2500 Hz	72.8
3150 Hz	76.5
4000 Hz	81.8
5000 Hz	86.4
6300 Hz	88.6

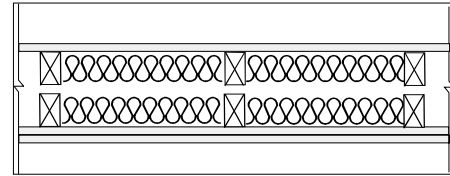
TL-93-293	element 1	element 2	element 3	element 4	element 5	element 6	element 7
type	gypsum board	stud	insulation	gap	stud	insulation	gypsum board
material	BX	wood	G1	air	wood	G1	BX
thickness mm	16	90	90	25	90	90	16
gauge							
spacing mm		610			610		
surface density kg/m <sup>2</sup>	10.9		1.1			1.1	11.0
linear density kg/m		1.2			1.2		
total weight kg	80.9	27.9	8.0		27.9	8.0	81.4
fastener spacing - edge mm	305						305
fastener spacing - field mm	305						305
fastener top track pattern	a						a
fastener base track pattern	a						a
stud attached to top track		yes			yes		
double header							
orientation	vertical						vertical

TL-93-293  
STC 59



G13\_WS90(406)\_GFB90\_AIR25\_WS90(406)\_GFB90\_2G13

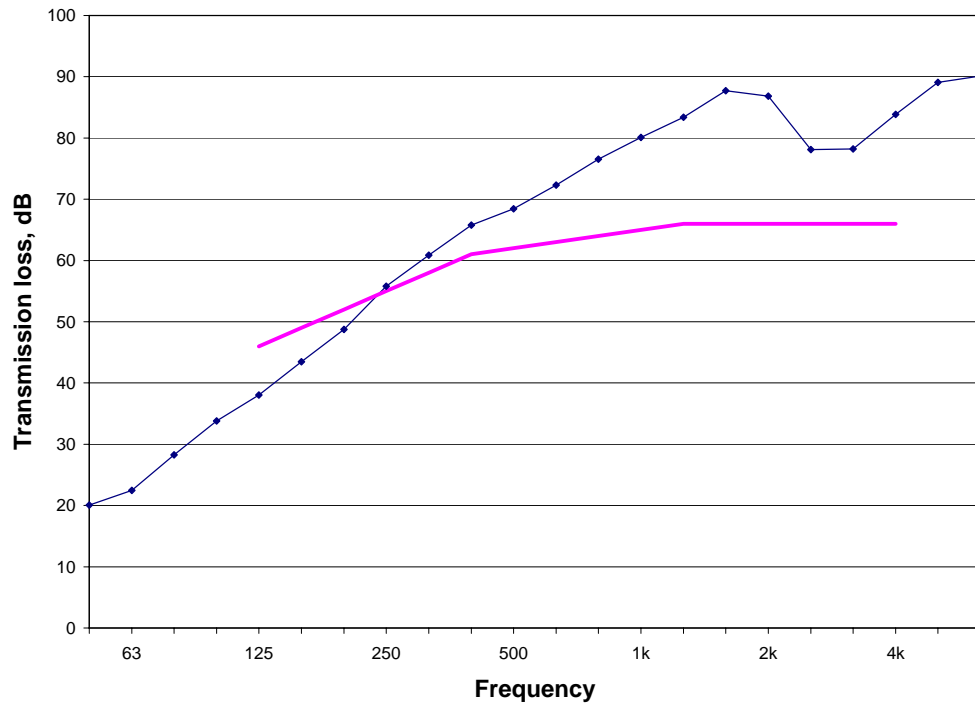
Element	Description:
1	single layer of 13 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	25 mm gap filled with air
5	90 mm wood studs at 406 mm on centre
6	90 mm of glass fibre insulation in cavity
7	single layer of 13 mm type X gypsum board
8	single layer of 13 mm type X gypsum board



TestID	TL-93-271
STC	62
50 Hz	20.0
63 Hz	22.5
80 Hz	28.2
100 Hz	33.8
125 Hz	38.0
160 Hz	43.5
200 Hz	48.7
250 Hz	55.8
315 Hz	60.8
400 Hz	65.8
500 Hz	68.5
630 Hz	72.3
800 Hz	76.5
1000 Hz	80.1
1250 Hz	83.4
1600 Hz	87.7
2000 Hz	86.8
2500 Hz	78.1
3150 Hz	78.2
4000 Hz	83.9
5000 Hz	89.1
6300 Hz	90.1

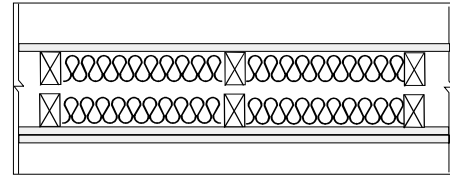
TL-93-271	element 1	element 2	element 3	element 4	element 5	element 6	element 7	element 8
type	gypsum board	stud	insulation	gap	stud	insulation	gypsum board	gypsum board
material	AX	wood	G1	air	wood	G1	AX	AX
thickness mm	13	90	90	25	90	90	13	13
gauge								
spacing mm		406			406			
surface density kg/m <sup>2</sup>	10.2		1.1			1.1	10.2	10.2
linear density kg/m		1.4			1.4			
total weight kg	75.7	37.0	7.1		37.9	7.1	76.1	75.7
fastener spacing - edge mm	406						610	406
fastener spacing - field mm	406						610	406
fastener top track pattern	c						c	c
fastener base track pattern	c						c	c
stud attached to top track		yes			yes			
double header								
orientation	vertical						vertical	vertical

TL-93-271  
STC 62



G13\_WS90(406)\_GFB90\_AIR25\_WS90(406)\_GFB90\_2G13

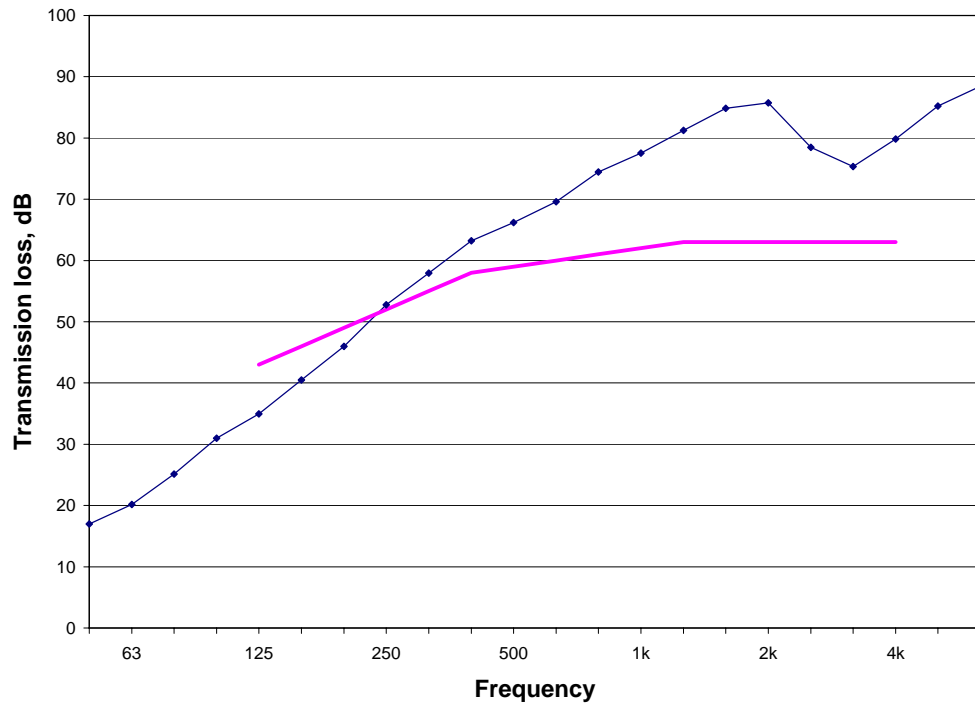
Element	Description:
1	single layer of 13 mm gypsum board
2	90 mm wood studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	25 mm gap filled with air
5	90 mm wood studs at 406 mm on centre
6	90 mm of glass fibre insulation in cavity
7	single layer of 13 mm gypsum board
8	single layer of 13 mm gypsum board



TestID	TL-93-274
STC	59
50 Hz	17.0
63 Hz	20.2
80 Hz	25.1
100 Hz	31.0
125 Hz	35.0
160 Hz	40.5
200 Hz	46.0
250 Hz	52.7
315 Hz	57.9
400 Hz	63.2
500 Hz	66.2
630 Hz	69.6
800 Hz	74.4
1000 Hz	77.5
1250 Hz	81.2
1600 Hz	84.8
2000 Hz	85.7
2500 Hz	78.5
3150 Hz	75.4
4000 Hz	79.8
5000 Hz	85.2
6300 Hz	88.5

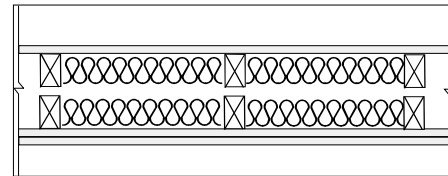
TL-93-274	element 1	element 2	element 3	element 4	element 5	element 6	element 7	element 8
type	gypsum board	stud	insulation	gap	stud	insulation	gypsum board	gypsum board
material	B	wood	G1	air	wood	G1	B	B
thickness mm	13	90	90	25	90	90	13	13
gauge								
spacing mm		406			406			
surface density kg/m <sup>2</sup>	8.4		1.1			1.1	8.2	8.3
linear density kg/m		1.4			1.4			
total weight kg	62.1	37.0	7.1		37.9	7.1	61.1	62.0
fastener spacing - edge mm	406						610	406
fastener spacing - field mm	406						610	406
fastener top track pattern	c						c	c
fastener base track pattern	c						c	c
stud attached to top track		yes			yes			
double header								
orientation	vertical						vertical	vertical

TL-93-274  
STC 59



G13\_WS90(610)\_GFB90\_AIR25\_WS90(610)\_GFB90\_2G13

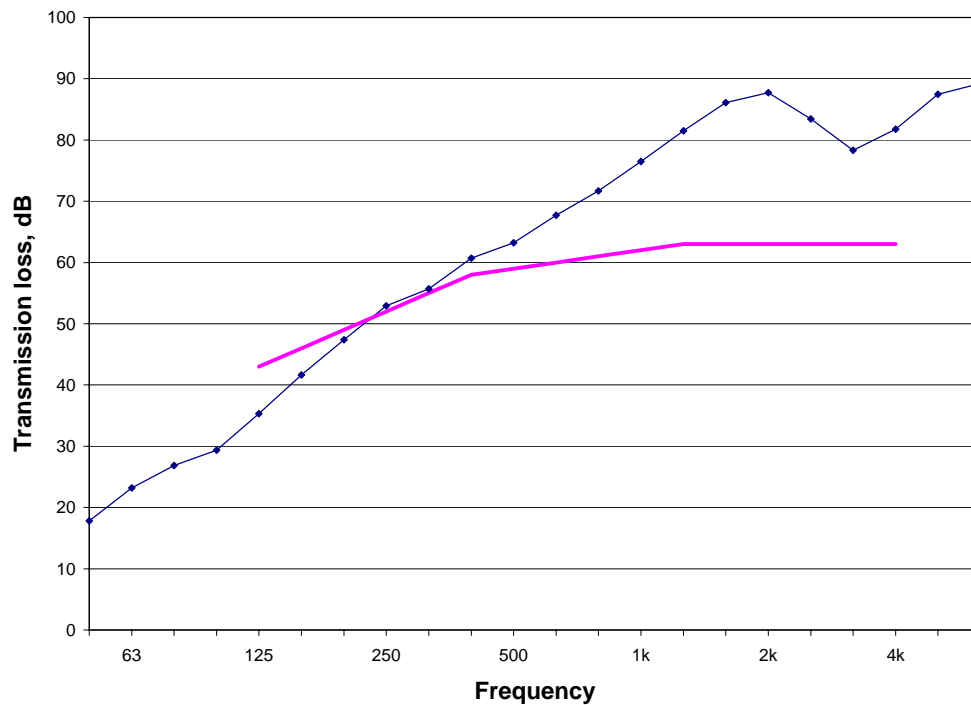
Element	Description:
1	single layer of 13 mm gypsum board
2	90 mm wood studs at 610 mm on centre
3	90 mm of glass fibre insulation in cavity
4	25 mm gap filled with air
5	90 mm wood studs at 610 mm on centre
6	90 mm of glass fibre insulation in cavity
7	single layer of 13 mm gypsum board
8	single layer of 13 mm gypsum board



TestID	TL-93-285
STC	59
50 Hz	17.8
63 Hz	23.2
80 Hz	26.9
100 Hz	29.4
125 Hz	35.3
160 Hz	41.7
200 Hz	47.4
250 Hz	52.9
315 Hz	55.7
400 Hz	60.7
500 Hz	63.2
630 Hz	67.7
800 Hz	71.7
1000 Hz	76.5
1250 Hz	81.5
1600 Hz	86.1
2000 Hz	87.7
2500 Hz	83.5
3150 Hz	78.3
4000 Hz	81.7
5000 Hz	87.4
6300 Hz	89.3

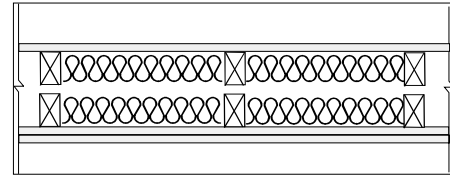
	element 1	element 2	element 3	element 4	element 5	element 6	element 7	element 8
type	gypsum board	stud	insulation	gap	stud	insulation	gypsum board	gypsum board
material	B	wood	G1	air	wood	G1	B	B
thickness mm	13	90	90	25	90	90	13	13
gauge								
spacing mm		610			610			
surface density kg/m <sup>2</sup>	8.3		1.2			1.2	8.3	8.3
linear density kg/m		1.2			1.2			
total weight kg	61.4	27.9	7.6		27.9	7.6	61.8	61.9
fastener spacing - edge mm	305						610	305
fastener spacing - field mm	305						610	305
fastener top track pattern	a						c	a
fastener base track pattern	a						c	a
stud attached to top track		yes			yes			
double header								
orientation	vertical						vertical	vertical

TL-93-285  
STC 59



G16\_WS90(406)\_GFB90\_AIR25\_WS90(406)\_GFB90\_2G16

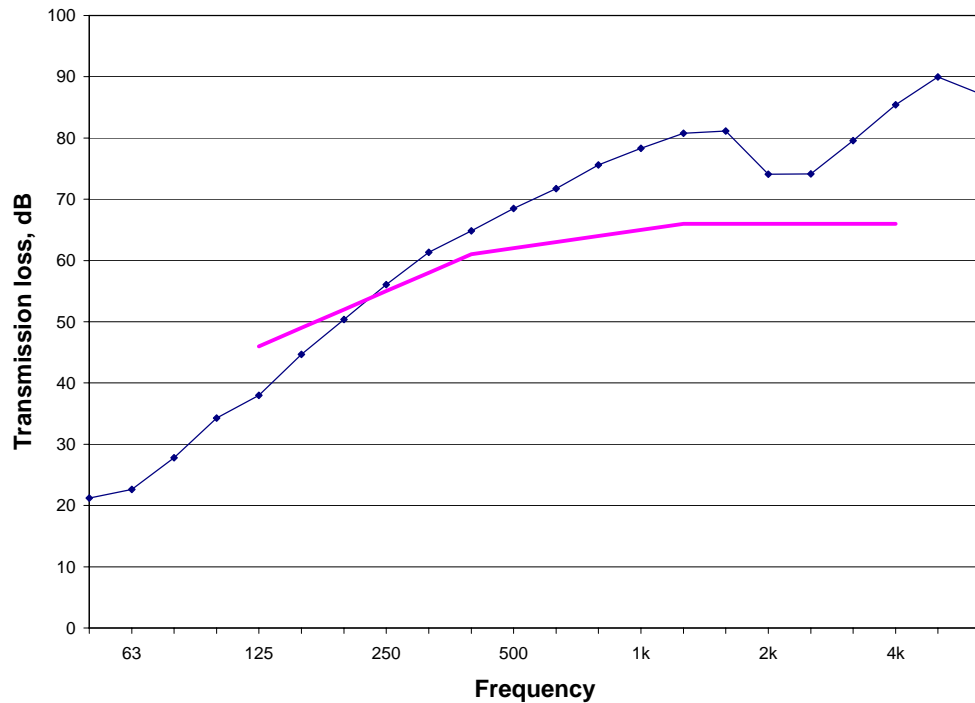
Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	90 mm of glass fibre insulation in cavity
4	25 mm gap filled with air
5	90 mm wood studs at 406 mm on centre
6	90 mm of glass fibre insulation in cavity
7	single layer of 16 mm type X gypsum board
8	single layer of 16 mm type X gypsum board



TestID	TL-93-267
STC	62
50 Hz	21.2
63 Hz	22.6
80 Hz	27.8
100 Hz	34.3
125 Hz	38.0
160 Hz	44.7
200 Hz	50.4
250 Hz	56.1
315 Hz	61.3
400 Hz	64.8
500 Hz	68.5
630 Hz	71.7
800 Hz	75.6
1000 Hz	78.3
1250 Hz	80.8
1600 Hz	81.1
2000 Hz	74.1
2500 Hz	74.2
3150 Hz	79.6
4000 Hz	85.4
5000 Hz	90.0
6300 Hz	87.2

TL-93-267	element 1	element 2	element 3	element 4	element 5	element 6	element 7	element 8
type	gypsum board	stud	insulation	gap	stud	insulation	gypsum board	gypsum board
material	CX	wood	G1	air	wood	G1	CX	CX
thickness mm	16	90	90	25	90	90	16	16
gauge								
spacing mm		406			406			
surface density kg/m <sup>2</sup>	11.5		1.1			1.1	11.4	11.4
linear density kg/m		1.4			1.4			
total weight kg	85.6	37.0	7.1		37.9	7.1	84.4	84.7
fastener spacing - edge mm	406						610	406
fastener spacing - field mm	406						610	406
fastener top track pattern	c						c	c
fastener base track pattern	c						c	c
stud attached to top track		yes			yes			
double header								
orientation	vertical						vertical	vertical

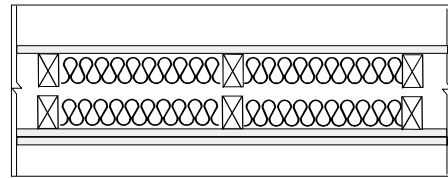
TL-93-267  
STC 62





G16\_WS90(610)\_AIR25\_WS90(610)\_CFS60\_2G16

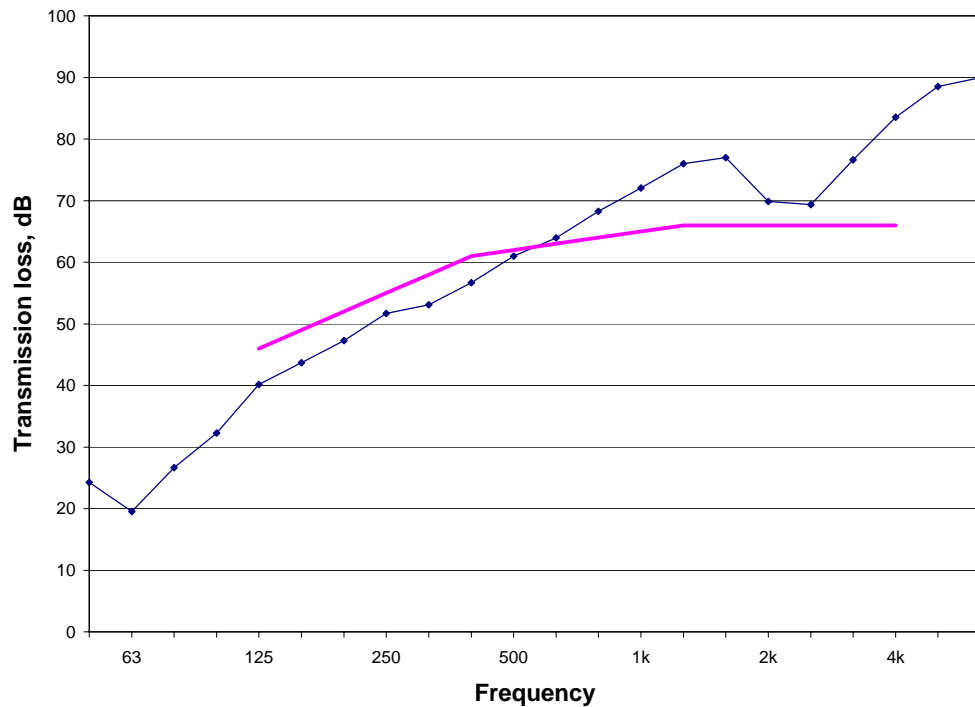
Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm wood studs at 610 mm on centre
3	25 mm gap filled with air
4	90 mm wood studs at 610 mm on centre
5	60 mm of sprayed cellulose fibre insulation in cavity
6	single layer of 16 mm type X gypsum board
7	single layer of 16 mm type X gypsum board



TestID	TL-93-312
STC	62
50 Hz	24.2
63 Hz	19.5
80 Hz	26.7
100 Hz	32.3
125 Hz	40.1
160 Hz	43.7
200 Hz	47.3
250 Hz	51.7
315 Hz	53.1
400 Hz	56.7
500 Hz	61.0
630 Hz	64.0
800 Hz	68.3
1000 Hz	72.1
1250 Hz	76.0
1600 Hz	77.0
2000 Hz	69.8
2500 Hz	69.4
3150 Hz	76.6
4000 Hz	83.5
5000 Hz	88.5
6300 Hz	90.0

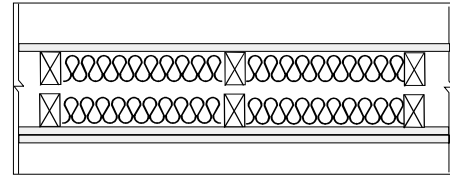
TL-93-312	element 1	element 2	element 3	element 4	element 5	element 6	element 7
type	gypsum board	stud	gap	stud	insulation	gypsum board	gypsum board
material	CX	wood	air	wood	C1	CX	CX
thickness mm	16	90	25	90	60	16	16
gauge							
spacing mm		610		610			
surface density kg/m <sup>2</sup>	11.4				3.9	11.6	11.5
linear density kg/m		1.3		1.2			
total weight kg	84.9	28.8		27.6	27.3	86.0	85.5
fastener spacing - edge mm	305					610	305
fastener spacing - field mm	305					610	305
fastener top track pattern	a					c	a
fastener base track pattern	a					c	a
stud attached to top track		yes		yes			
double header							
orientation	vertical					vertical	vertical

TL-93-312  
STC 62



G16\_WS90(610)\_GFB90\_AIR25\_WS90(610)\_GFB90\_2G16

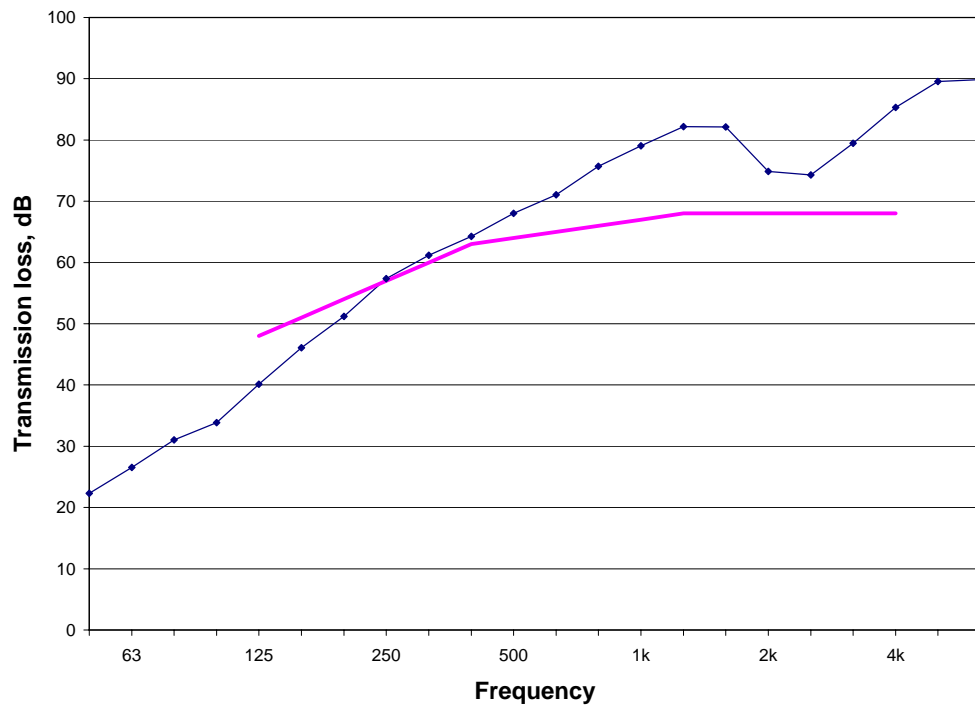
Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm wood studs at 610 mm on centre
3	90 mm of glass fibre insulation in cavity
4	25 mm gap filled with air
5	90 mm wood studs at 610 mm on centre
6	90 mm of glass fibre insulation in cavity
7	single layer of 16 mm type X gypsum board
8	single layer of 16 mm type X gypsum board



TestID	TL-93-282
STC	64
50 Hz	22.3
63 Hz	26.5
80 Hz	31.1
100 Hz	33.9
125 Hz	40.1
160 Hz	46.1
200 Hz	51.2
250 Hz	57.4
315 Hz	61.2
400 Hz	64.3
500 Hz	68.0
630 Hz	71.1
800 Hz	75.7
1000 Hz	79.1
1250 Hz	82.2
1600 Hz	82.1
2000 Hz	74.9
2500 Hz	74.3
3150 Hz	79.5
4000 Hz	85.3
5000 Hz	89.5
6300 Hz	89.9

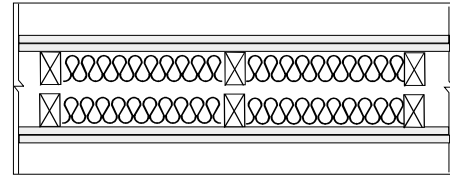
TL-93-282	element 1	element 2	element 3	element 4	element 5	element 6	element 7	element 8
type	gypsum board	stud	insulation	gap	stud	insulation	gypsum board	gypsum board
material	CX	wood	G1	air	wood	G1	CX	CX
thickness mm	16	90	90	25	90	90	16	16
gauge								
spacing mm		610			610			
surface density kg/m <sup>2</sup>	11.5		1.2			1.2	11.4	11.3
linear density kg/m		1.2			1.2			
total weight kg	85.3	27.9	7.6		27.9	7.6	84.5	84.1
fastener spacing - edge mm	305						610	305
fastener spacing - field mm	305						610	305
fastener top track pattern	a						c	a
fastener base track pattern	a						c	a
stud attached to top track		yes			yes			
double header								
orientation	vertical						vertical	vertical

TL-93-282  
STC 64



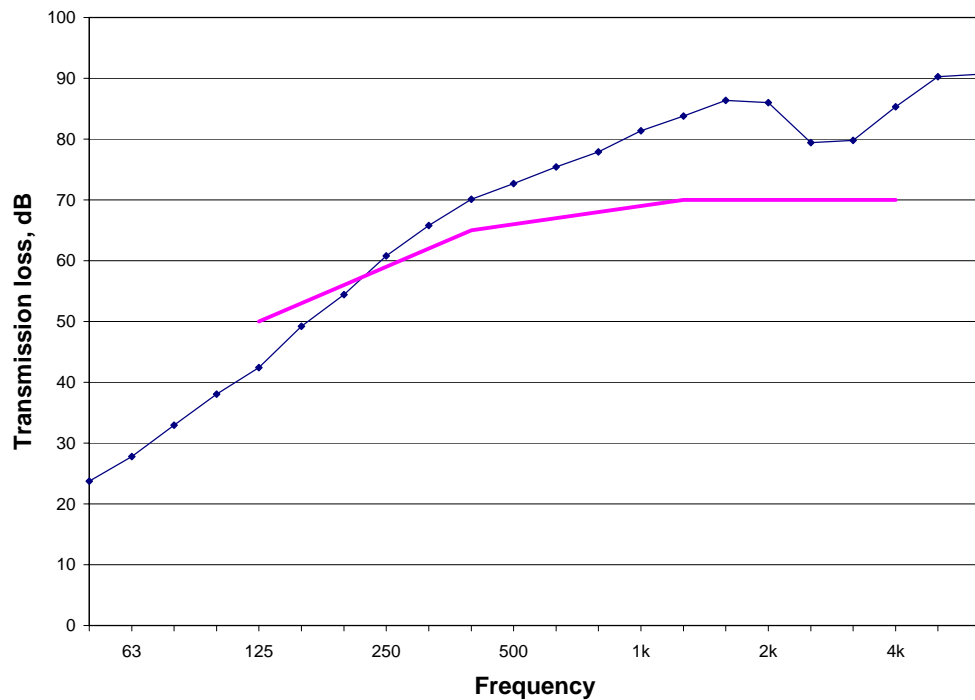
2G13\_WS90(406)\_GFB90\_AIR25\_WS90(406)\_GFB90\_2G13

Element	Description:
1	single layer of 13 mm type X gypsum board
2	single layer of 13 mm type X gypsum board
3	90 mm wood studs at 406 mm on centre
4	90 mm of glass fibre insulation in cavity
5	25 mm gap filled with air
6	90 mm wood studs at 406 mm on centre
7	90 mm of glass fibre insulation in cavity
8	single layer of 13 mm type X gypsum board
9	single layer of 13 mm type X gypsum board



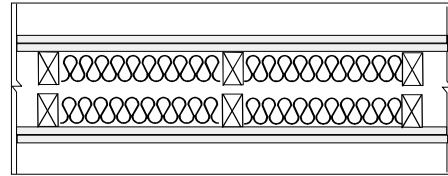
TestID	TL-93-272	TL-93-272	element 1	element 2	element 3	element 4	element 5	element 6	element 7	element 8	element 9
STC	66										
50 Hz	23.7	type	gypsum board	gypsum board	stud	insulation	gap	stud	insulation	gypsum board	gypsum board
63 Hz	27.8	material	AX	AX	wood	G1	air	wood	G1	AX	AX
80 Hz	32.9	thickness mm	13	13	90	90	25	90	90	13	13
100 Hz	38.0	gauge									
125 Hz	42.4	spacing mm			406			406			
160 Hz	49.2	surface density kg/m <sup>2</sup>	10.0	10.2		1.1			1.1	10.2	10.2
200 Hz	54.4	linear density kg/m			1.4			1.4			
250 Hz	60.8	total weight kg	74.5	75.7	37.0	7.1		37.9	7.1	76.1	75.7
315 Hz	65.8	fastener spacing - edge mm	406	610						610	406
400 Hz	70.1	fastener spacing - field mm	406	610						610	406
500 Hz	72.7	fastener top track pattern	c	c						c	c
630 Hz	75.4	fastener base track pattern	c	c						c	c
800 Hz	77.9	stud attached to top track			yes			yes			
1000 Hz	81.4	double header									
1250 Hz	83.8	orientation	vertical	vertical						vertical	vertical
1600 Hz	86.4										
2000 Hz	86.0										
2500 Hz	79.4										
3150 Hz	79.8										
4000 Hz	85.3										
5000 Hz	90.3										
6300 Hz	90.7										

TL-93-272  
STC 66



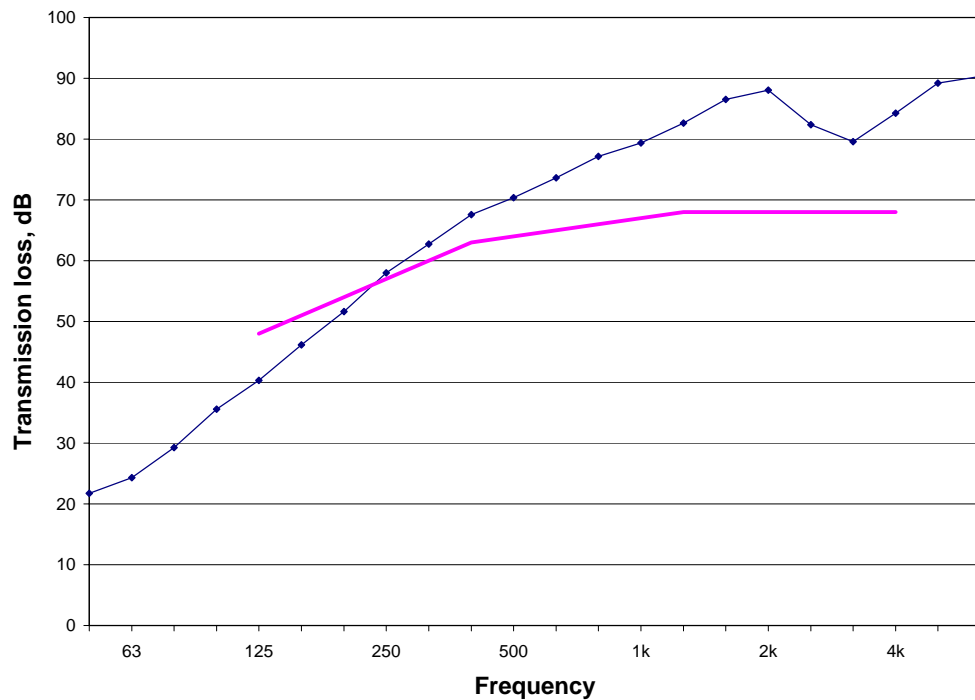
2G13\_WS90(406)\_GFB90\_AIR25\_WS90(406)\_GFB90\_2G13

Element	Description:
1	single layer of 13 mm gypsum board
2	single layer of 13 mm gypsum board
3	90 mm wood studs at 406 mm on centre
4	90 mm of glass fibre insulation in cavity
5	25 mm gap filled with air
6	90 mm wood studs at 406 mm on centre
7	90 mm of glass fibre insulation in cavity
8	single layer of 13 mm gypsum board
9	single layer of 13 mm gypsum board



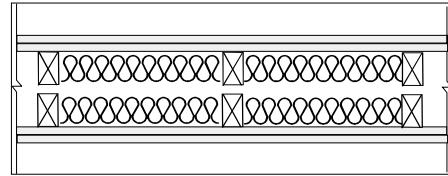
TestID	TL-93-275	TL-93-275	element 1	element 2	element 3	element 4	element 5	element 6	element 7	element 8	element 9
STC	64										
50 Hz	21.7	type	gypsum board	gypsum board	stud	insulation	gap	stud	insulation	gypsum board	gypsum board
63 Hz	24.3	material	B	B	wood	G1	air	wood	G1	B	B
80 Hz	29.3	thickness mm	13	13	90	90	25	90	90	13	13
100 Hz	35.6	gauge									
125 Hz	40.3	spacing mm			406			406			
160 Hz	46.2	surface density kg/m <sup>2</sup>	8.3	8.4		1.1			1.1	8.2	8.3
200 Hz	51.6	linear density kg/m			1.4			1.4			
250 Hz	58.0	total weight kg	61.9	62.1	37.0	7.1		37.9	7.1	61.1	62.0
315 Hz	62.7	fastener spacing - edge mm	406	610						610	406
400 Hz	67.6	fastener spacing - field mm	406	610						610	406
500 Hz	70.4	fastener top track pattern	c	c						c	c
630 Hz	73.6	fastener base track pattern	c	c						c	c
800 Hz	77.2	stud attached to top track			yes			yes			
1000 Hz	79.4	double header									
1250 Hz	82.7	orientation	vertical	vertical						vertical	vertical
1600 Hz	86.5										
2000 Hz	88.1										
2500 Hz	82.4										
3150 Hz	79.6										
4000 Hz	84.3										
5000 Hz	89.2										
6300 Hz	90.3										

**TL-93-275**  
**STC 64**



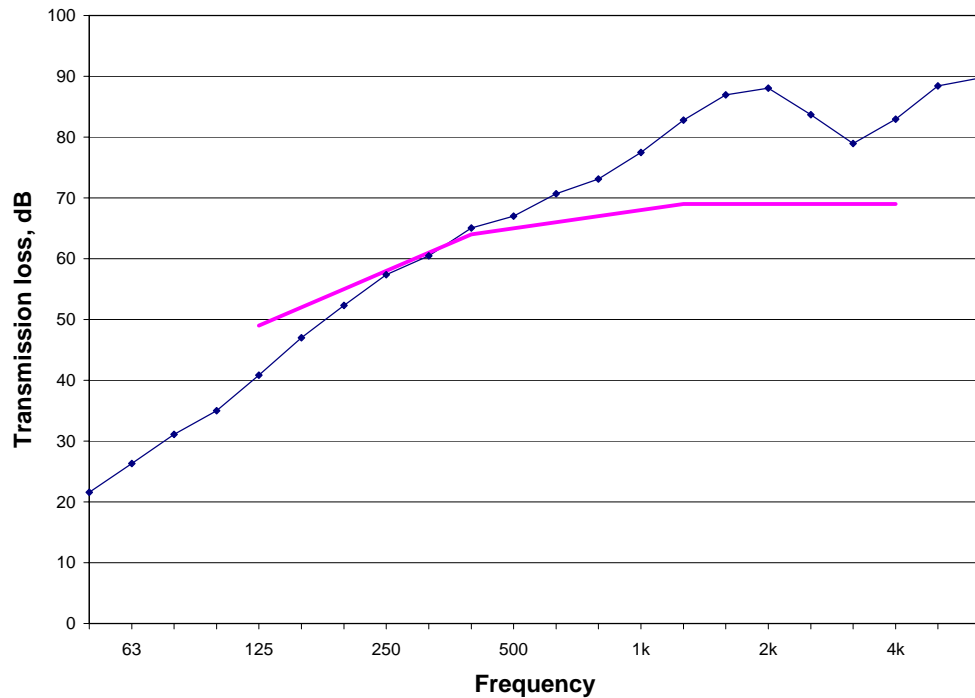
2G13\_WS90(610)\_GFB90\_AIR25\_WS90(610)\_GFB90\_2G13

Element	Description:
1	single layer of 13 mm gypsum board
2	single layer of 13 mm gypsum board
3	90 mm wood studs at 610 mm on centre
4	90 mm of glass fibre insulation in cavity
5	25 mm gap filled with air
6	90 mm wood studs at 610 mm on centre
7	90 mm of glass fibre insulation in cavity
8	single layer of 13 mm gypsum board
9	single layer of 13 mm gypsum board



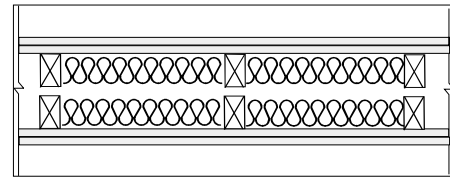
TestID	TL-93-286	TL-93-286	element 1	element 2	element 3	element 4	element 5	element 6	element 7	element 8	element 9
STC	65										
50 Hz	21.6	type	gypsum board	gypsum board	stud	insulation	gap	stud	insulation	gypsum board	gypsum board
63 Hz	26.3	material	B	B	wood	G1	air	wood	G1	B	B
80 Hz	31.1	thickness mm	13	13	90	90	25	90	90	13	13
100 Hz	35.0	gauge									
125 Hz	40.9	spacing mm			610			610			
160 Hz	47.0	surface density kg/m <sup>2</sup>	8.2	8.3		1.2			1.2	8.3	8.3
200 Hz	52.3	linear density kg/m			1.2			1.2			
250 Hz	57.4	total weight kg	60.9	61.4	27.9	7.6		27.9	7.6	61.8	61.9
315 Hz	60.5	fastener spacing - edge mm	305	610						610	305
400 Hz	65.0	fastener spacing - field mm	305	610						610	305
500 Hz	67.0	fastener top track pattern	a	c						c	a
630 Hz	70.7	fastener base track pattern	a	c						c	a
800 Hz	73.1	stud attached to top track			yes			yes			
1000 Hz	77.5	double header									
1250 Hz	82.8	orientation	vertical	vertical						vertical	vertical
1600 Hz	86.9										
2000 Hz	88.1										
2500 Hz	83.7										
3150 Hz	79.0										
4000 Hz	82.9										
5000 Hz	88.4										
6300 Hz	89.7										

TL-93-286  
STC 65



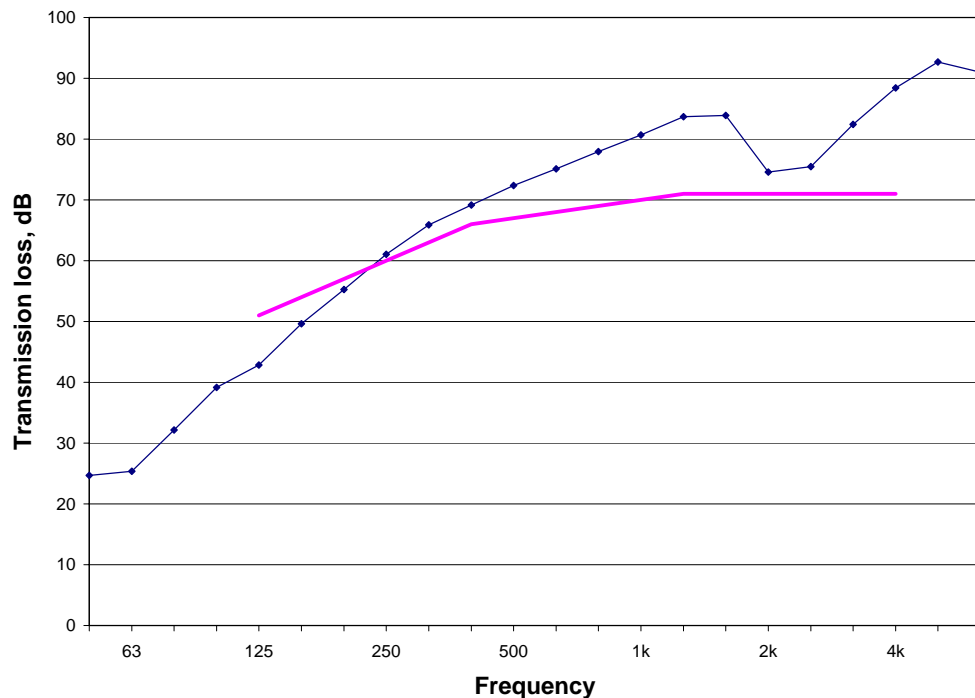
2G16\_WS90(406)\_GFB90\_AIR25\_WS90(406)\_GFB90\_2G16

Element	Description:
1	single layer of 16 mm type X gypsum board
2	single layer of 16 mm type X gypsum board
3	90 mm wood studs at 406 mm on centre
4	90 mm of glass fibre insulation in cavity
5	25 mm gap filled with air
6	90 mm wood studs at 406 mm on centre
7	90 mm of glass fibre insulation in cavity
8	single layer of 16 mm type X gypsum board
9	single layer of 16 mm type X gypsum board



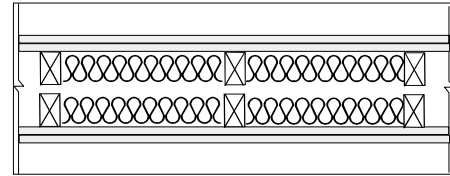
TestID	TL-93-269	TL-93-269	element 1	element 2	element 3	element 4	element 5	element 6	element 7	element 8	element 9
STC	67										
50 Hz	24.7	type	gypsum board	gypsum board	stud	insulation	gap	stud	insulation	gypsum board	gypsum board
63 Hz	25.4	material	CX	CX	wood	G1	air	wood	G1	CX	CX
80 Hz	32.2	thickness mm	16	16	90	90	25	90	90	16	16
100 Hz	39.1	gauge									
125 Hz	42.8	spacing mm			406			406			
160 Hz	49.6	surface density kg/m <sup>2</sup>	11.6	11.5		1.1			1.1	11.4	11.4
200 Hz	55.3	linear density kg/m			1.4			1.4			
250 Hz	61.1	total weight kg	85.9	85.6	37.0	7.1		37.9	7.1	84.4	84.7
315 Hz	65.9	fastener spacing - edge mm	406	610						610	406
400 Hz	69.1	fastener spacing - field mm	406	610						610	406
500 Hz	72.4	fastener top track pattern	c	c						c	c
630 Hz	75.1	fastener base track pattern	c	c						c	c
800 Hz	77.9	stud attached to top track			yes			yes			
1000 Hz	80.7	double header									
1250 Hz	83.7	orientation	vertical	vertical						vertical	vertical
1600 Hz	83.9										
2000 Hz	74.6										
2500 Hz	75.5										
3150 Hz	82.4										
4000 Hz	88.4										
5000 Hz	92.7										
6300 Hz	91.0										

TL-93-269  
STC 67



2G16\_WS90(610)\_AIR25\_WS90(610)\_CFS60\_2G16

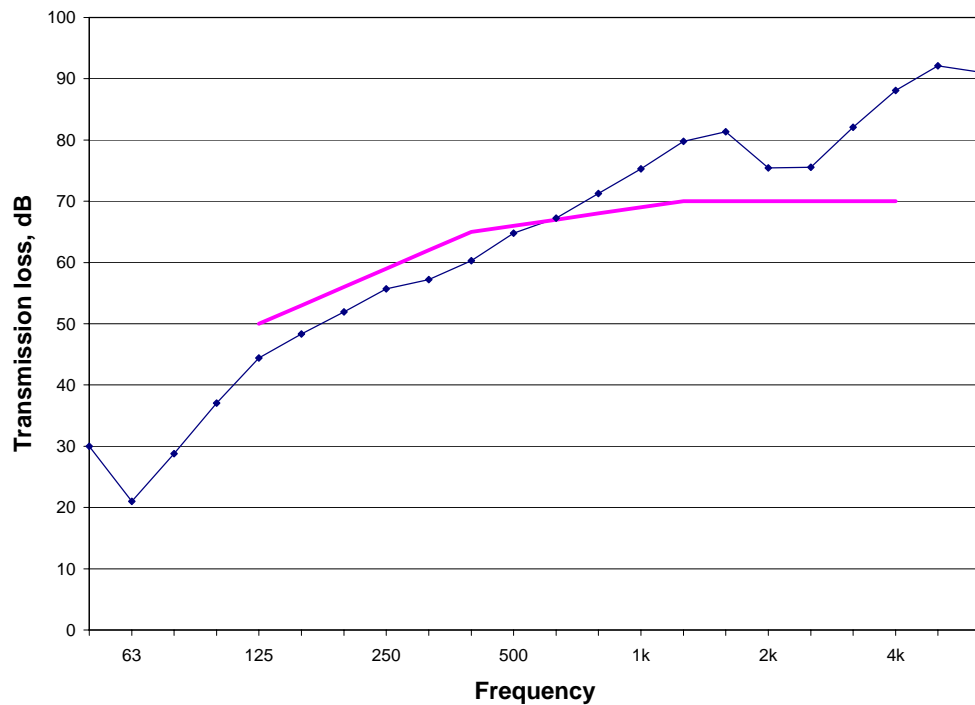
Element	Description:
1	single layer of 16 mm type X gypsum board
2	single layer of 16 mm type X gypsum board
3	90 mm wood studs at 610 mm on centre
4	25 mm gap filled with air
5	90 mm wood studs at 610 mm on centre
6	60 mm of sprayed cellulose fibre insulation in cavity
7	single layer of 16 mm type X gypsum board
8	single layer of 16 mm type X gypsum board



TestID	TL-93-313
STC	66
50 Hz	30.0
63 Hz	21.0
80 Hz	28.8
100 Hz	37.0
125 Hz	44.4
160 Hz	48.3
200 Hz	51.9
250 Hz	55.7
315 Hz	57.2
400 Hz	60.3
500 Hz	64.8
630 Hz	67.2
800 Hz	71.3
1000 Hz	75.3
1250 Hz	79.8
1600 Hz	81.4
2000 Hz	75.5
2500 Hz	75.5
3150 Hz	82.1
4000 Hz	88.1
5000 Hz	92.1
6300 Hz	91.1

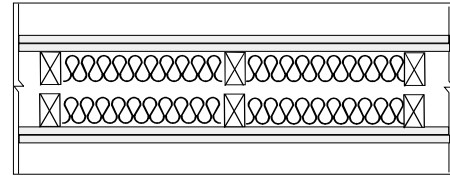
TL-93-313	element 1	element 2	element 3	element 4	element 5	element 6	element 7	element 8
type	gypsum board	gypsum board	stud	gap	stud	insulation	gypsum board	gypsum board
material	CX	CX	wood	air	wood	C1	CX	CX
thickness mm	16	16	90	25	90	60	16	16
gauge								
spacing mm			610		610			
surface density kg/m <sup>2</sup>	11.3	11.4				3.9	11.6	11.5
linear density kg/m			1.3		1.2			
total weight kg	84.0	84.9	28.8		27.6	27.3	86.0	85.5
fastener spacing - edge mm	305	610					610	305
fastener spacing - field mm	305	610					610	305
fastener top track pattern	a	c					c	a
fastener base track pattern	a	c					c	a
stud attached to top track			yes		yes			
double header								
orientation	vertical	vertical					vertical	vertical

TL-93-313  
STC 66



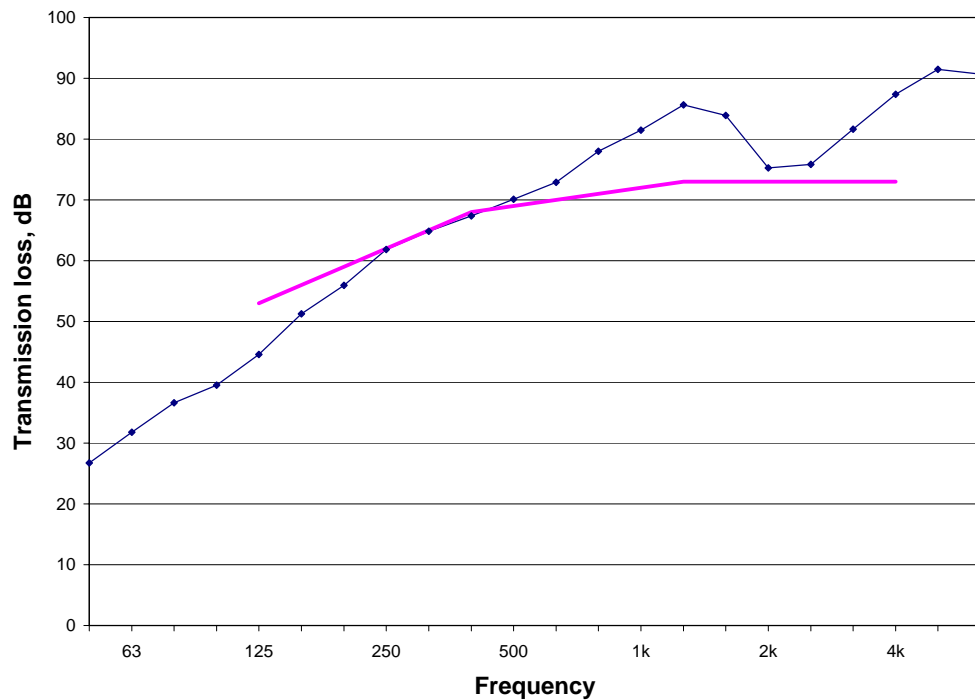
2G16\_WS90(610)\_GFB90\_AIR25\_WS90(610)\_GFB90\_2G16

Element	Description:
1	single layer of 16 mm type X gypsum board
2	single layer of 16 mm type X gypsum board
3	90 mm wood studs at 610 mm on centre
4	90 mm of glass fibre insulation in cavity
5	25 mm gap filled with air
6	90 mm wood studs at 610 mm on centre
7	90 mm of glass fibre insulation in cavity
8	single layer of 16 mm type X gypsum board
9	single layer of 16 mm type X gypsum board



TestID	TL-93-283	TL-93-283	element 1	element 2	element 3	element 4	element 5	element 6	element 7	element 8	element 9
STC	69										
50 Hz	26.7	type	gypsum board	gypsum board	stud	insulation	gap	stud	insulation	gypsum board	gypsum board
63 Hz	31.8	material	CX	CX	wood	G1	air	wood	G1	CX	CX
80 Hz	36.6	thickness mm	16	16	90	90	25	90	90	16	16
100 Hz	39.5	gauge									
125 Hz	44.6	spacing mm			610			610			
160 Hz	51.3	surface density kg/m <sup>2</sup>	11.6	11.5		1.2			1.2	11.4	11.3
200 Hz	55.9	linear density kg/m			1.2			1.2			
250 Hz	61.8	total weight kg	86.0	85.3	27.9	7.6		27.9	7.6	84.5	84.1
315 Hz	64.9	fastener spacing - edge mm	305	610						610	305
400 Hz	67.3	fastener spacing - field mm	305	610						610	305
500 Hz	70.1	fastener top track pattern	a	c						c	a
630 Hz	72.9	fastener base track pattern	a	c						c	a
800 Hz	78.0	stud attached to top track			yes			yes			
1000 Hz	81.5	double header									
1250 Hz	85.6	orientation	vertical	vertical						vertical	vertical
1600 Hz	83.9										
2000 Hz	75.3										
2500 Hz	75.9										
3150 Hz	81.7										
4000 Hz	87.4										
5000 Hz	91.5										
6300 Hz	90.7										

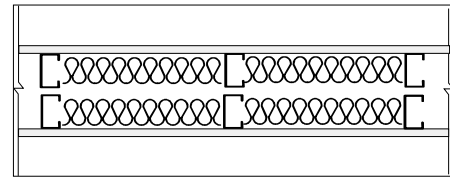
TL-93-283  
STC 69





G13\_SS40(610)\_MFB40\_AIR65\_SS40(610)\_MFB40\_G13

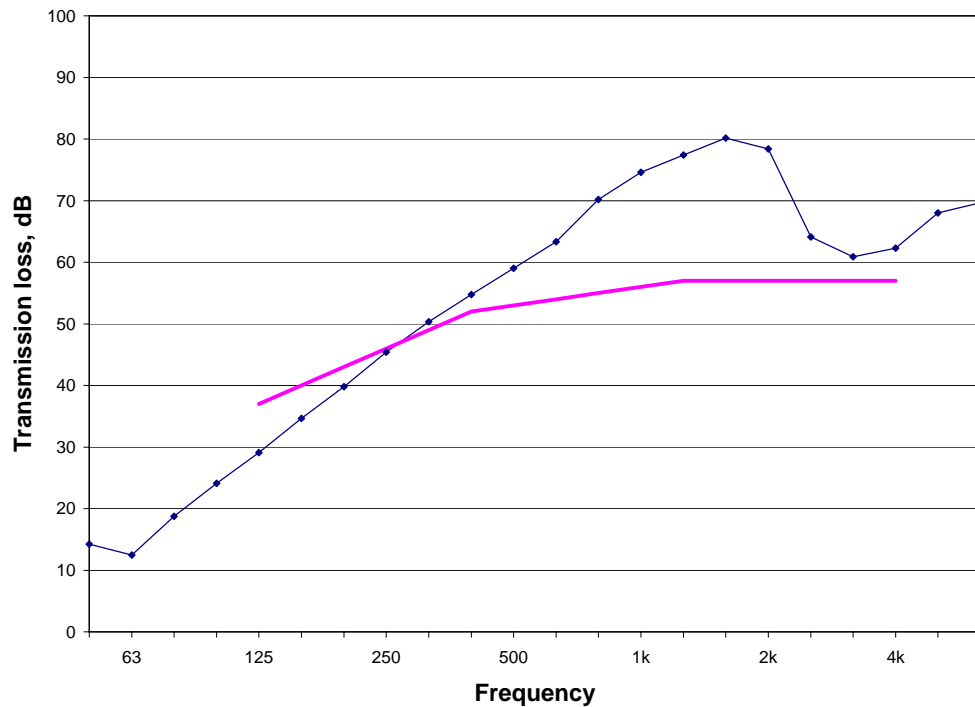
Element	Description:
1	single layer of 13 mm type X gypsum board
2	40 mm steel studs at 610 mm on centre
3	40 mm of mineral fibre insulation in cavity
4	65 mm gap filled with cross brace
5	40 mm steel studs at 610 mm on centre
6	40 mm of mineral fibre insulation in cavity
7	single layer of 13 mm type X gypsum board



TestID	TL-93-306
STC	53
50 Hz	14.2
63 Hz	12.5
80 Hz	18.7
100 Hz	24.1
125 Hz	29.1
160 Hz	34.6
200 Hz	39.8
250 Hz	45.4
315 Hz	50.4
400 Hz	54.8
500 Hz	59.0
630 Hz	63.3
800 Hz	70.2
1000 Hz	74.6
1250 Hz	77.4
1600 Hz	80.2
2000 Hz	78.4
2500 Hz	64.1
3150 Hz	60.9
4000 Hz	62.3
5000 Hz	68.0
6300 Hz	69.7

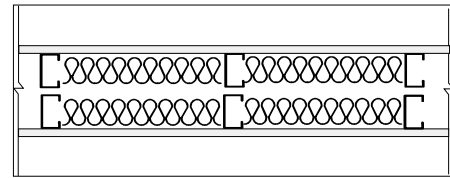
TL-93-306	element 1	element 2	element 3	element 4	element 5	element 6	element 7
type	gypsum board	stud	insulation	gap	stud	insulation	gypsum board
material	AX	steel	M2	cross brace	steel	M2	AX
thickness mm	13	40	40	65	40	40	13
gauge		25			25		
spacing mm		610			610		
surface density kg/m <sup>2</sup>	10.2		2.2			2.2	10.4
linear density kg/m		0.4			0.4		
total weight kg	76.1	7.9	16.0		7.9	16.0	77.5
fastener spacing - edge mm	305						305
fastener spacing - field mm	305						305
fastener top track pattern	a						a
fastener base track pattern	a						a
stud attached to top track		yes			yes		
double header							
orientation	vertical						vertical

TL-93-306  
STC 53



G13\_SS65(610)\_GFB65\_AIR20\_SS65(610)\_GFB65\_G13

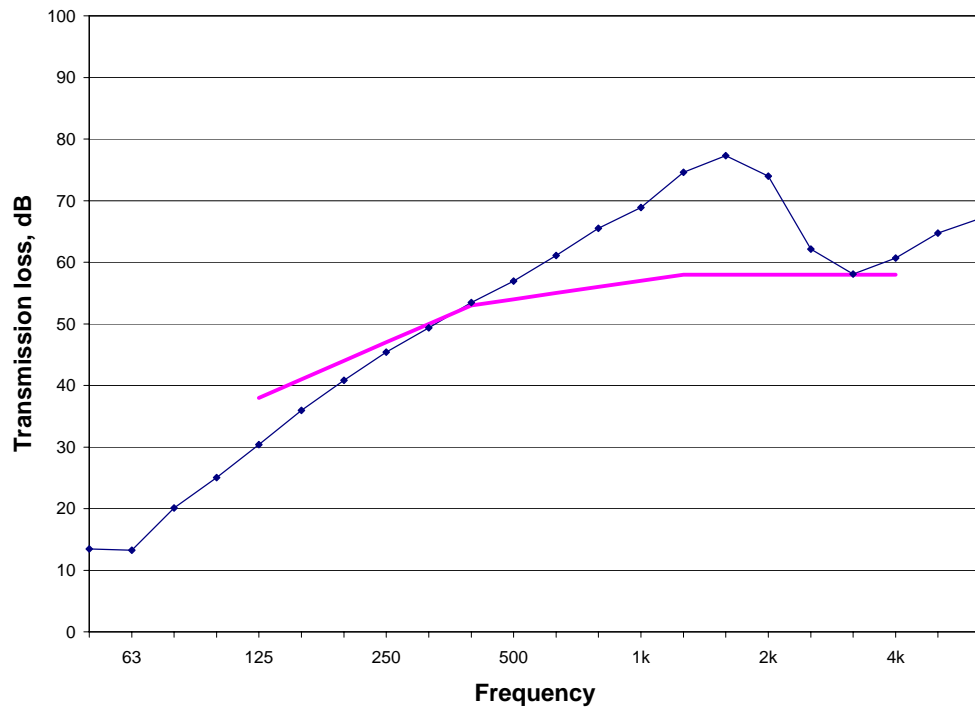
Element	Description:
1	single layer of 13 mm type X gypsum board
2	65 mm steel studs at 610 mm on centre
3	65 mm of glass fibre insulation in cavity
4	16 mm gap filled with cross brace
5	65 mm steel studs at 610 mm on centre
6	65 mm of glass fibre insulation in cavity
7	single layer of 13 mm type X gypsum board



TestID	TL-93-303
STC	54
50 Hz	13.5
63 Hz	13.3
80 Hz	20.1
100 Hz	25.0
125 Hz	30.4
160 Hz	36.0
200 Hz	40.8
250 Hz	45.4
315 Hz	49.4
400 Hz	53.4
500 Hz	56.9
630 Hz	61.1
800 Hz	65.5
1000 Hz	68.9
1250 Hz	74.6
1600 Hz	77.3
2000 Hz	74.0
2500 Hz	62.1
3150 Hz	58.1
4000 Hz	60.7
5000 Hz	64.7
6300 Hz	67.1

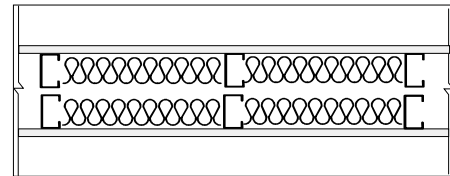
TL-93-303	element 1	element 2	element 3	element 4	element 5	element 6	element 7
type	gypsum board	stud	insulation	gap	stud	insulation	gypsum board
material	AX	steel	G1	cross brace	steel	G1	AX
thickness mm	13	65	65	16	65	65	13
gauge		25			25		
spacing mm		610			610		
surface density kg/m <sup>2</sup>	10.3		0.5			0.5	10.2
linear density kg/m		0.5			0.5		
total weight kg	76.8	9.4	5.3		9.5	5.3	76.0
fastener spacing - edge mm	305						305
fastener spacing - field mm	305						305
fastener top track pattern	a						a
fastener base track pattern	a						a
stud attached to top track		yes			yes		
double header							
orientation	vertical						vertical

TL-93-303  
STC 54



G16\_SS40(610)\_MFB40\_AIR65\_SS40(610)\_MFB40\_G16

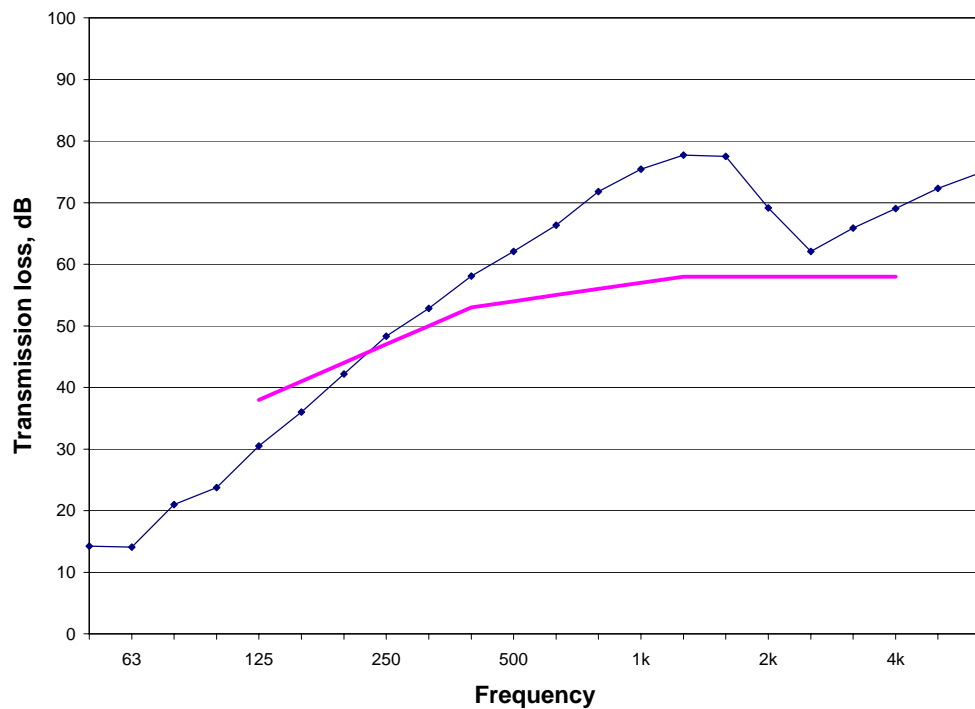
Element	Description:
1	single layer of 16 mm type X gypsum board
2	40 mm steel studs at 610 mm on centre
3	40 mm of mineral fibre insulation in cavity
4	65 mm gap filled with cross brace
5	40 mm steel studs at 610 mm on centre
6	40 mm of mineral fibre insulation in cavity
7	single layer of 16 mm type X gypsum board



TestID	TL-93-309
STC	54
50 Hz	14.2
63 Hz	14.1
80 Hz	21.0
100 Hz	23.8
125 Hz	30.5
160 Hz	36.0
200 Hz	42.2
250 Hz	48.3
315 Hz	52.8
400 Hz	58.1
500 Hz	62.1
630 Hz	66.3
800 Hz	71.8
1000 Hz	75.4
1250 Hz	77.7
1600 Hz	77.5
2000 Hz	69.2
2500 Hz	62.1
3150 Hz	65.9
4000 Hz	69.0
5000 Hz	72.3
6300 Hz	74.8

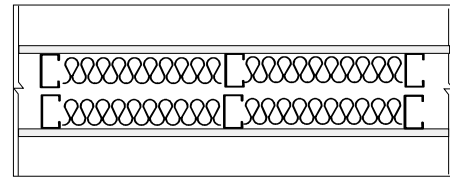
TL-93-309	element 1	element 2	element 3	element 4	element 5	element 6	element 7
type	gypsum board	stud	insulation	gap	stud	insulation	gypsum board
material	CX	steel	M2	cross brace	steel	M2	CX
thickness mm	16	40	40	65	40	40	16
gauge		25			25		
spacing mm		610			610		
surface density kg/m <sup>2</sup>	11.5		2.2			2.2	11.5
linear density kg/m		0.4			0.4		
total weight kg	85.4	7.9	16.0		7.9	16.0	85.6
fastener spacing - edge mm	305						305
fastener spacing - field mm	305						305
fastener top track pattern	a						a
fastener base track pattern	a						a
stud attached to top track		yes			yes		
double header							
orientation	vertical						vertical

TL-93-309  
STC 54



G16\_SS40(610)\_MFB40\_AIR65\_SS40(610)\_MFB40\_G16

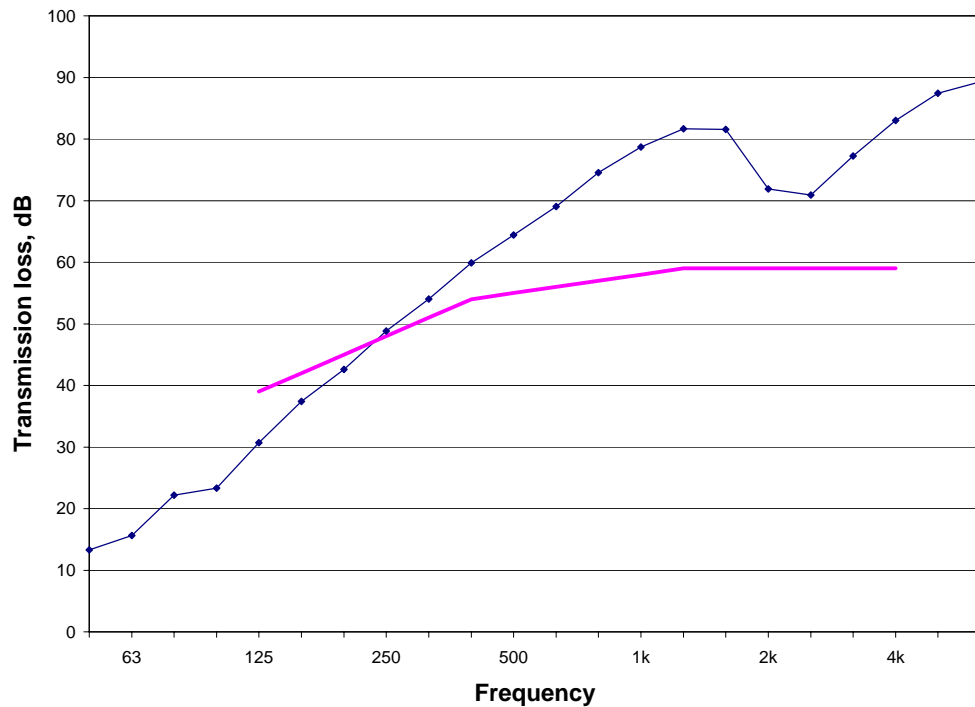
Element	Description:
1	single layer of 16 mm type X gypsum board
2	40 mm steel studs at 610 mm on centre
3	40 mm of mineral fibre insulation in cavity
4	65 mm gap filled with air
5	40 mm steel studs at 610 mm on centre
6	40 mm of mineral fibre insulation in cavity
7	single layer of 16 mm type X gypsum board



TestID	TL-93-310
STC	55
50 Hz	13.3
63 Hz	15.6
80 Hz	22.2
100 Hz	23.3
125 Hz	30.7
160 Hz	37.4
200 Hz	42.6
250 Hz	48.8
315 Hz	54.0
400 Hz	59.9
500 Hz	64.4
630 Hz	69.0
800 Hz	74.5
1000 Hz	78.7
1250 Hz	81.7
1600 Hz	81.5
2000 Hz	71.9
2500 Hz	70.9
3150 Hz	77.2
4000 Hz	83.0
5000 Hz	87.4
6300 Hz	89.3

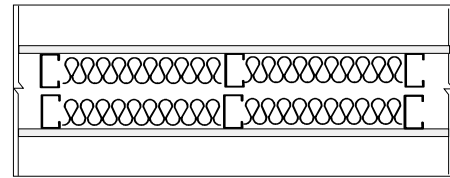
TL-93-310	element 1	element 2	element 3	element 4	element 5	element 6	element 7
type	gypsum board	stud	insulation	gap	stud	insulation	gypsum board
material	CX	steel	M2	air	steel	M2	CX
thickness mm	16	40	40	65	40	40	16
gauge		25			25		
spacing mm		610			610		
surface density kg/m <sup>2</sup>	11.5		2.2			2.2	11.5
linear density kg/m		0.4			0.4		
total weight kg	85.4	7.9	16.0		7.9	16.0	85.6
fastener spacing - edge mm	305						305
fastener spacing - field mm	305						305
fastener top track pattern	a						a
fastener base track pattern	a						a
stud attached to top track		yes			yes		
double header							
orientation	vertical						vertical

TL-93-310  
STC 55



G16\_SS65(610)\_GFB65\_AIR20\_SS65(610)\_GFB65\_G16

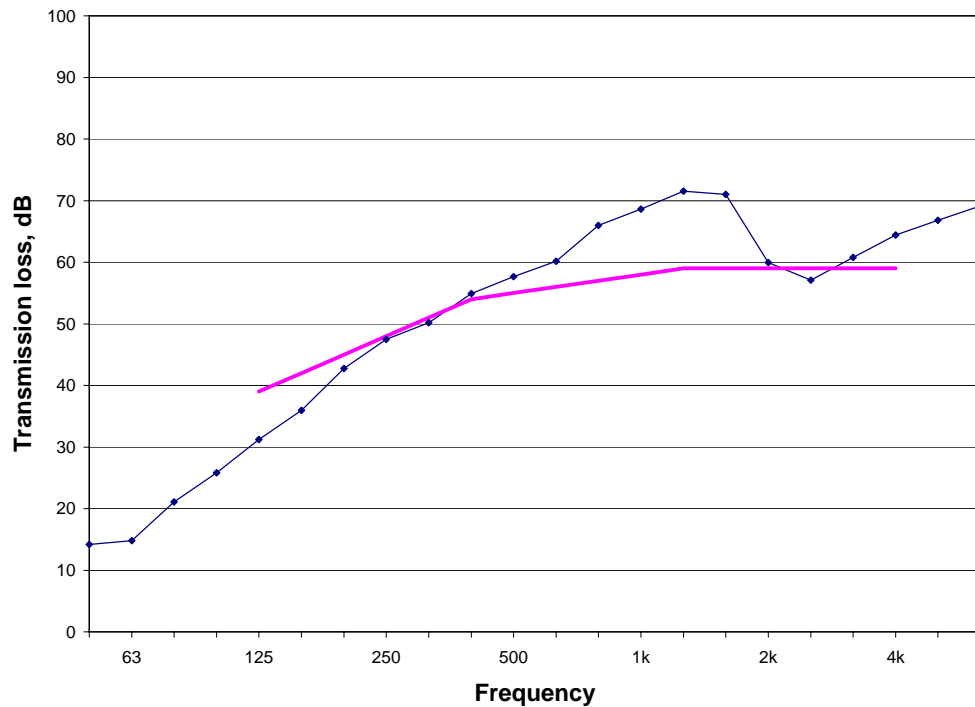
Element	Description:
1	single layer of 16 mm type X gypsum board
2	65 mm steel studs at 610 mm on centre
3	65 mm of glass fibre insulation in cavity
4	16 mm gap filled with cross brace
5	65 mm steel studs at 610 mm on centre
6	65 mm of glass fibre insulation in cavity
7	single layer of 16 mm type X gypsum board



TestID	TL-93-300
STC	55
50 Hz	14.2
63 Hz	14.8
80 Hz	21.1
100 Hz	25.8
125 Hz	31.2
160 Hz	35.9
200 Hz	42.8
250 Hz	47.5
315 Hz	50.2
400 Hz	54.9
500 Hz	57.6
630 Hz	60.2
800 Hz	66.0
1000 Hz	68.6
1250 Hz	71.6
1600 Hz	71.0
2000 Hz	59.9
2500 Hz	57.1
3150 Hz	60.8
4000 Hz	64.4
5000 Hz	66.8
6300 Hz	69.2

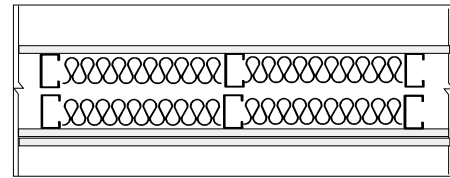
TL-93-300	element 1	element 2	element 3	element 4	element 5	element 6	element 7
type	gypsum board	stud	insulation	gap	stud	insulation	gypsum board
material	CX	steel	G1	cross brace	steel	G1	CX
thickness mm	16	65	65	16	65	65	16
gauge		25			25		
spacing mm		610			610		
surface density kg/m <sup>2</sup>	11.4		0.5			0.5	11.6
linear density kg/m		0.5			0.5		
total weight kg	84.9	9.4	5.3		9.5	5.3	86.2
fastener spacing - edge mm	305						305
fastener spacing - field mm	305						305
fastener top track pattern	a						a
fastener base track pattern	a						a
stud attached to top track		yes			yes		
double header							
orientation	vertical						vertical

TL-93-300  
STC 55



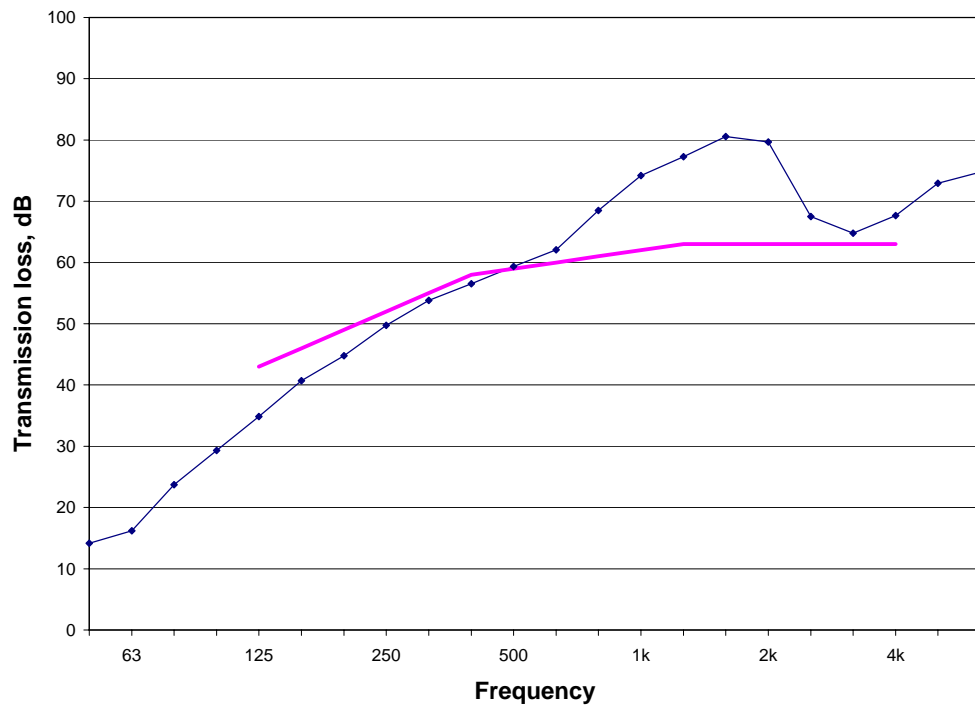
G13\_SS40(610)\_MFB40\_AIR65\_SS40(610)\_MFB40\_2G13

Element	Description:
1	single layer of 13 mm type X gypsum board
2	40 mm steel studs at 610 mm on centre
3	40 mm of mineral fibre insulation in cavity
4	65 mm gap filled with cross brace
5	40 mm steel studs at 610 mm on centre
6	40 mm of mineral fibre insulation in cavity
7	single layer of 13 mm type X gypsum board
8	single layer of 13 mm type X gypsum board



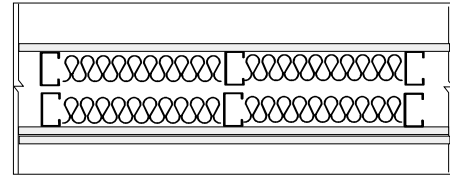
TestID	TL-93-307	TL-93-307							
STC	59	element 1	element 2	element 3	element 4	element 5	element 6	element 7	element 8
50 Hz	14.2	gypsum board	stud	insulation	gap	stud	insulation	gypsum board	gypsum board
63 Hz	16.2	AX	steel	M2	cross brace	steel	M2	AX	AX
80 Hz	23.7	13	40	40	65	40	40	13	13
100 Hz	29.3		25			25			
125 Hz	34.9		610			610			
160 Hz	40.7	10.2		2.2			2.2	10.4	10.2
200 Hz	44.8		0.4			0.4			
250 Hz	49.7	76.1	7.9	16.0		7.9	16.0	77.5	75.7
315 Hz	53.8	305						305	305
400 Hz	56.5	305						610	305
500 Hz	59.4	a						a	a
630 Hz	62.0	a						a	a
800 Hz	68.5		yes			yes			
1000 Hz	74.2								
1250 Hz	77.3								
1600 Hz	80.6	vertical						vertical	vertical
2000 Hz	79.7								
2500 Hz	67.5								
3150 Hz	64.8								
4000 Hz	67.6								
5000 Hz	72.9								
6300 Hz	74.8								

TL-93-307  
STC 59



G13\_SS65(610)\_GFB65\_AIR20\_SS65(610)\_GFB65\_2G13

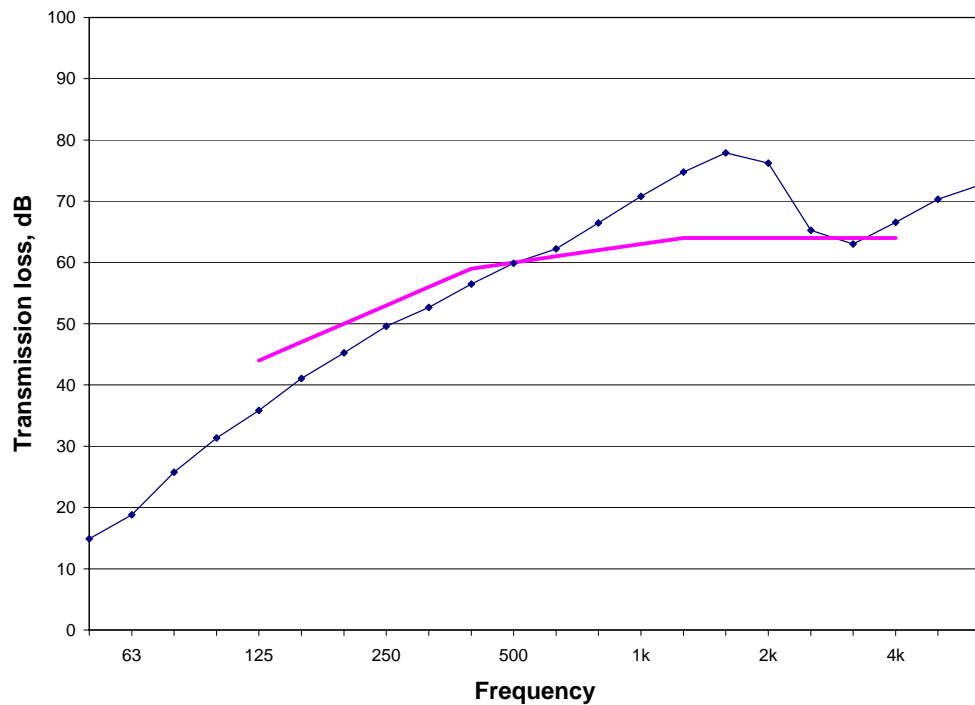
Element	Description:
1	single layer of 13 mm type X gypsum board
2	65 mm steel studs at 610 mm on centre
3	65 mm of glass fibre insulation in cavity
4	16 mm gap filled with cross brace
5	65 mm steel studs at 610 mm on centre
6	65 mm of glass fibre insulation in cavity
7	single layer of 13 mm type X gypsum board
8	single layer of 13 mm type X gypsum board



TestID	TL-93-304
STC	60
50 Hz	14.9
63 Hz	18.8
80 Hz	25.7
100 Hz	31.4
125 Hz	35.8
160 Hz	41.1
200 Hz	45.3
250 Hz	49.6
315 Hz	52.7
400 Hz	56.5
500 Hz	59.9
630 Hz	62.2
800 Hz	66.4
1000 Hz	70.8
1250 Hz	74.8
1600 Hz	77.9
2000 Hz	76.2
2500 Hz	65.3
3150 Hz	63.0
4000 Hz	66.6
5000 Hz	70.3
6300 Hz	72.7

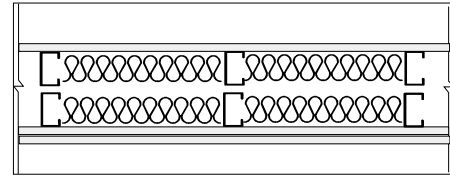
TL-93-304	element 1	element 2	element 3	element 4	element 5	element 6	element 7	element 8
type	gypsum board	stud	insulation	gap	stud	insulation	gypsum board	gypsum board
material	AX	steel	G1	cross brace	steel	G1	AX	AX
thickness mm	13	65	65	16	65	65	13	13
gauge		25			25			
spacing mm		610			610			
surface density kg/m <sup>2</sup>	10.3		0.5			0.5	10.2	10.2
linear density kg/m		0.5			0.5			
total weight kg	76.8	9.4	5.3		9.5	5.3	76.0	76.0
fastener spacing - edge mm	305						305	305
fastener spacing - field mm	305						610	305
fastener top track pattern	a						a	a
fastener base track pattern	a						a	a
stud attached to top track		yes			yes			
double header								
orientation	vertical						vertical	vertical

TL-93-304  
STC 60



G16\_SS65(610)\_GFB65\_AIR20\_SS65(610)\_GFB65\_2G16

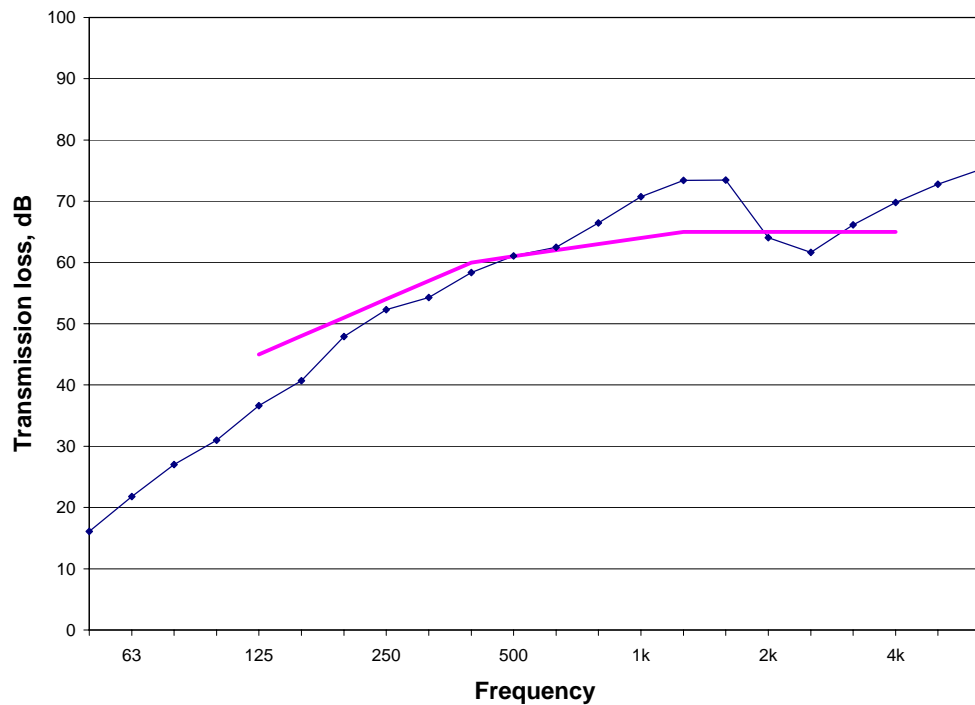
Element	Description:
1	single layer of 16 mm type X gypsum board
2	65 mm steel studs at 610 mm on centre
3	65 mm of glass fibre insulation in cavity
4	16 mm gap filled with cross brace
5	65 mm steel studs at 610 mm on centre
6	65 mm of glass fibre insulation in cavity
7	single layer of 16 mm type X gypsum board
8	single layer of 16 mm type X gypsum board



TestID	TL-93-301
STC	61
50 Hz	16.1
63 Hz	21.8
80 Hz	27.0
100 Hz	31.0
125 Hz	36.6
160 Hz	40.7
200 Hz	47.9
250 Hz	52.3
315 Hz	54.3
400 Hz	58.3
500 Hz	61.1
630 Hz	62.5
800 Hz	66.4
1000 Hz	70.8
1250 Hz	73.4
1600 Hz	73.5
2000 Hz	64.1
2500 Hz	61.6
3150 Hz	66.1
4000 Hz	69.8
5000 Hz	72.8
6300 Hz	75.2

TL-93-301	element 1	element 2	element 3	element 4	element 5	element 6	element 7	element 8
type	gypsum board	stud	insulation	gap	stud	insulation	gypsum board	gypsum board
material	CX	steel	G1	cross brace	steel	G1	CX	CX
thickness mm	16	65	65	16	65	65	16	16
gauge		25			25			
spacing mm		610			610			
surface density kg/m <sup>2</sup>	11.4		0.5			0.5	11.6	11.5
linear density kg/m		0.5			0.5			
total weight kg	84.9	9.4	5.3		9.5	5.3	86.2	85.4
fastener spacing - edge mm	305						305	305
fastener spacing - field mm	305						610	305
fastener top track pattern	a						a	a
fastener base track pattern	a						a	a
stud attached to top track		yes			yes			
double header								
orientation	vertical						vertical	vertical

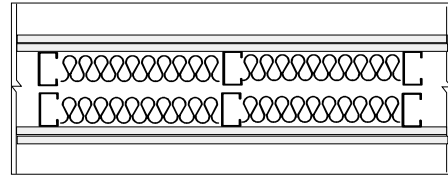
TL-93-301  
STC 61





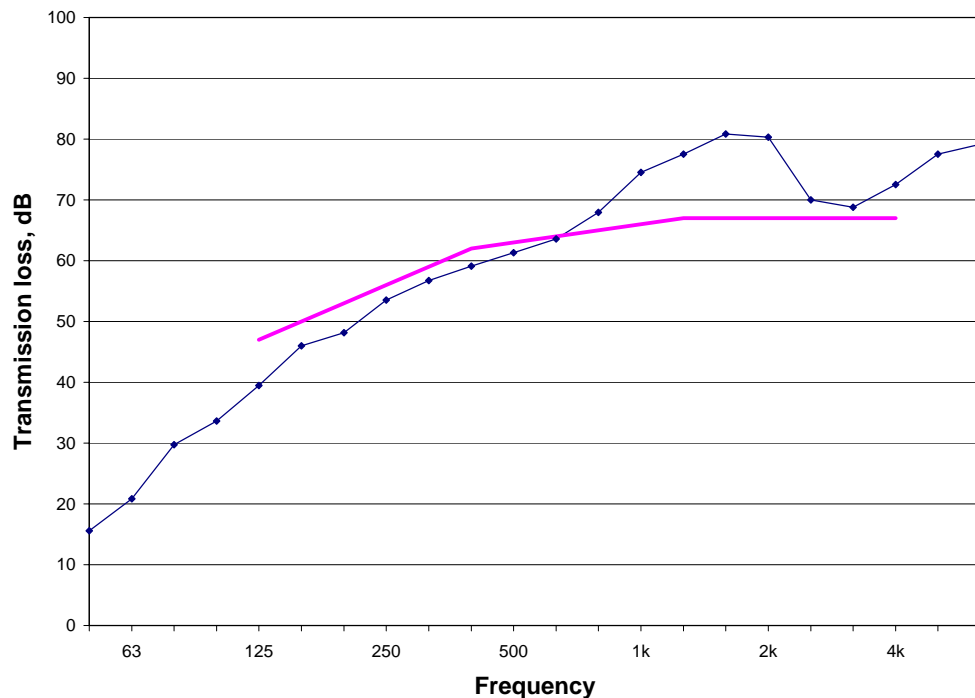
2G13\_SS40(610)\_MFB40\_AIR65\_SS40(610)\_MFB40\_2G13

Element	Description:
1	single layer of 13 mm type X gypsum board
2	single layer of 13 mm type X gypsum board
3	40 mm steel studs at 610 mm on centre
4	40 mm of mineral fibre insulation in cavity
5	65 mm gap filled with cross brace
6	40 mm steel studs at 610 mm on centre
7	40 mm of mineral fibre insulation in cavity
8	single layer of 13 mm type X gypsum board
9	single layer of 13 mm type X gypsum board



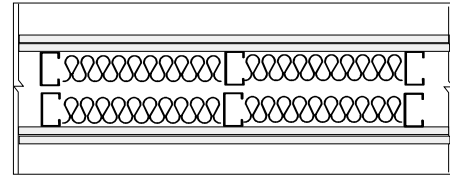
TestID	TL-93-308	TL-93-308	element 1	element 2	element 3	element 4	element 5	element 6	element 7	element 8	element 9
STC	63										
50 Hz	15.6	type	gypsum board	gypsum board	stud	insulation	gap	stud	insulation	gypsum board	gypsum board
63 Hz	20.8	material	AX	AX	steel	M2	cross brace	steel	M2	AX	AX
80 Hz	29.8	thickness mm	13	13	40	40	65	40	40	13	13
100 Hz	33.6	gauge			25			25			
125 Hz	39.4	spacing mm			610			610			
160 Hz	46.0	surface density kg/m <sup>2</sup>	10.3	10.2		2.2			2.2	10.4	10.2
200 Hz	48.1	linear density kg/m			0.4			0.4			
250 Hz	53.5	total weight kg	76.8	76.1	7.9	16.0		7.9	16.0	77.5	75.7
315 Hz	56.7	fastener spacing - edge mm	305	305						305	305
400 Hz	59.1	fastener spacing - field mm	305	610						610	305
500 Hz	61.3	fastener top track pattern	a	a						a	a
630 Hz	63.6	fastener base track pattern	a	a						a	a
800 Hz	68.0	stud attached to top track			yes			yes			
1000 Hz	74.5	double header									
1250 Hz	77.5	orientation	vertical	vertical						vertical	vertical
1600 Hz	80.9										
2000 Hz	80.3										
2500 Hz	70.0										
3150 Hz	68.8										
4000 Hz	72.5										
5000 Hz	77.5										
6300 Hz	79.2										

TL-93-308  
STC 63



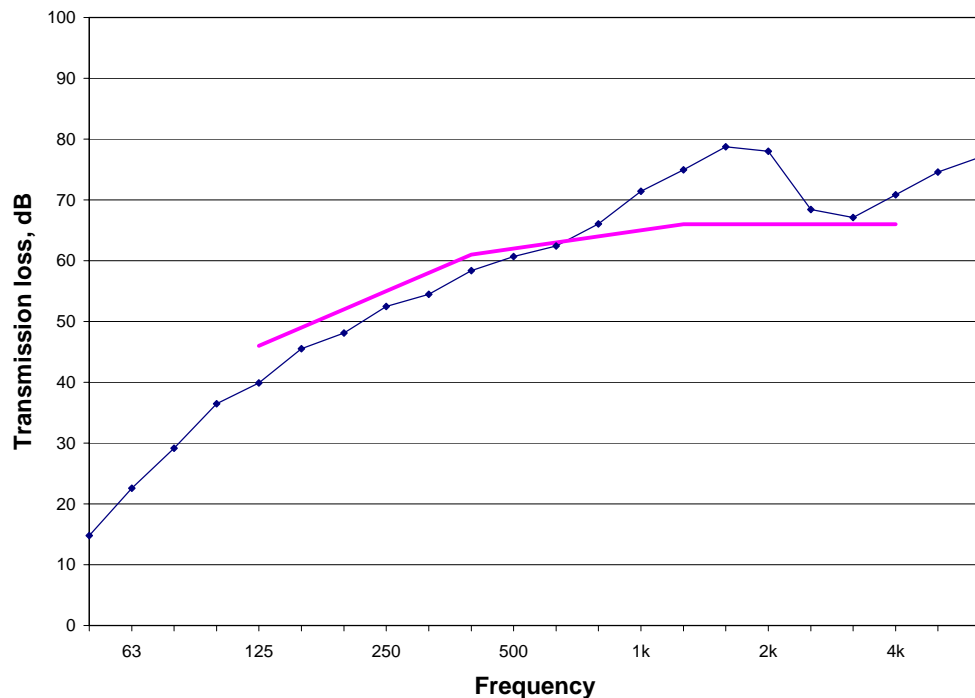
2G13\_SS65(610)\_GFB65\_AIR20\_SS65(610)\_GFB65\_2G13

Element	Description:
1	single layer of 13 mm type X gypsum board
2	single layer of 13 mm type X gypsum board
3	65 mm steel studs at 610 mm on centre
4	65 mm of glass fibre insulation in cavity
5	16 mm gap filled with cross brace
6	65 mm steel studs at 610 mm on centre
7	65 mm of glass fibre insulation in cavity
8	single layer of 13 mm type X gypsum board
9	single layer of 13 mm type X gypsum board



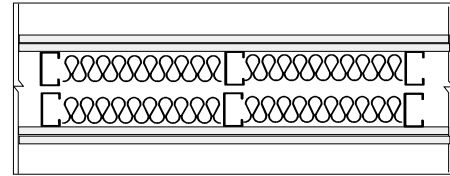
TestID	TL-93-305	TL-93-305	element 1	element 2	element 3	element 4	element 5	element 6	element 7	element 8	element 9
STC	62										
50 Hz	14.8	type	gypsum board	gypsum board	stud	insulation	gap	stud	insulation	gypsum board	gypsum board
63 Hz	22.6	material	AX	AX	steel	G1	cross brace	steel	G1	AX	AX
80 Hz	29.1	thickness mm	13	13	65	65	16	65	65	13	13
100 Hz	36.5	gauge			25			25			
125 Hz	39.9	spacing mm			610			610			
160 Hz	45.5	surface density kg/m <sup>2</sup>	10.3	10.3		0.5			0.5	10.2	10.2
200 Hz	48.1	linear density kg/m			0.5			0.5			
250 Hz	52.4	total weight kg	76.2	76.8	9.4	5.3		9.5	5.3	76.0	76.0
315 Hz	54.5	fastener spacing - edge mm	305	305						305	305
400 Hz	58.4	fastener spacing - field mm	305	610						610	305
500 Hz	60.7	fastener top track pattern	a	a						a	a
630 Hz	62.4	fastener base track pattern	a	a						a	a
800 Hz	66.0	stud attached to top track			yes			yes			
1000 Hz	71.4	double header									
1250 Hz	74.9	orientation	vertical	vertical						vertical	vertical
1600 Hz	78.7										
2000 Hz	78.0										
2500 Hz	68.4										
3150 Hz	67.1										
4000 Hz	70.9										
5000 Hz	74.6										
6300 Hz	77.1										

TL-93-305  
STC 62



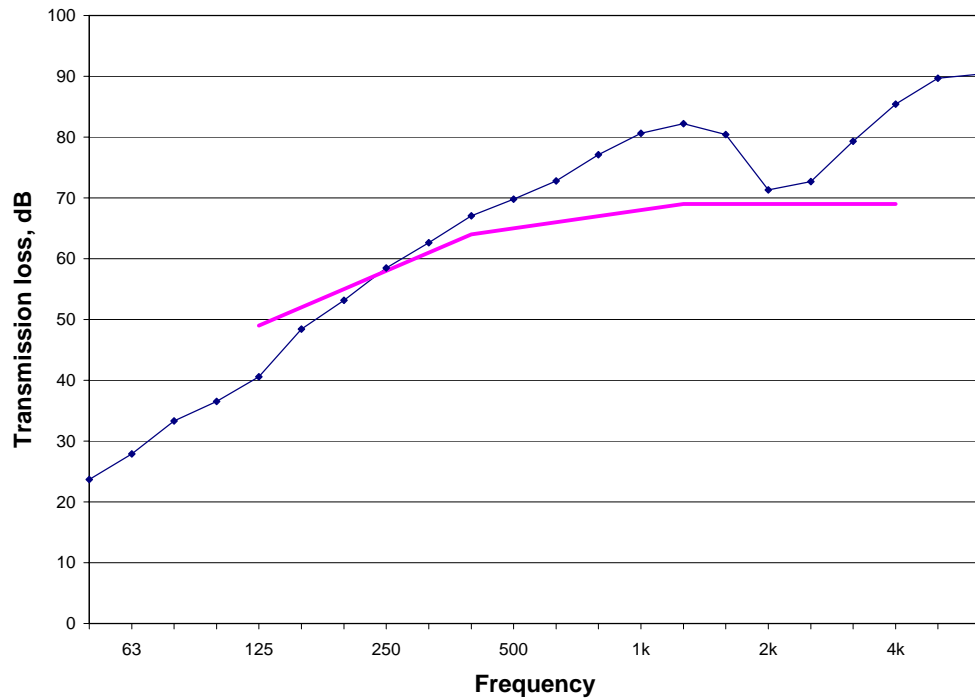
2G16\_SS40(610)\_MFB40\_AIR65\_SS40(610)\_MFB40\_2G16

Element	Description:
1	single layer of 16 mm type X gypsum board
2	single layer of 16 mm type X gypsum board
3	40 mm steel studs at 610 mm on centre
4	40 mm of mineral fibre insulation in cavity
5	65 mm gap filled with air
6	40 mm steel studs at 610 mm on centre
7	40 mm of mineral fibre insulation in cavity
8	single layer of 16 mm type X gypsum board
9	single layer of 16 mm type X gypsum board



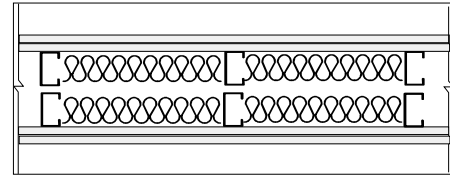
TestID	TL-93-320	TL-93-320	element 1	element 2	element 3	element 4	element 5	element 6	element 7	element 8	element 9
STC	65										
50 Hz	23.7	type	gypsum board	gypsum board	stud	insulation	gap	stud	insulation	gypsum board	gypsum board
63 Hz	27.9	material	CX	CX	steel	M2	air	steel	M2	CX	CX
80 Hz	33.3	thickness mm	16	16	40	40	65	40	40	16	16
100 Hz	36.5	gauge			25			25			
125 Hz	40.6	spacing mm			610			610			
160 Hz	48.4	surface density kg/m <sup>2</sup>	11.3	11.5		2.2			2.2	11.5	11.5
200 Hz	53.2	linear density kg/m			0.4			0.4			
250 Hz	58.5	total weight kg	83.6	85.4	7.9	16.0		7.9	16.0	85.6	85.4
315 Hz	62.7	fastener spacing - edge mm	305	305						305	305
400 Hz	67.1	fastener spacing - field mm	305	610						610	305
500 Hz	69.8	fastener top track pattern	a	a						a	a
630 Hz	72.8	fastener base track pattern	a	a						a	a
800 Hz	77.1	stud attached to top track			yes			yes			
1000 Hz	80.7	double header									
1250 Hz	82.2	orientation	vertical	vertical						vertical	vertical
1600 Hz	80.4										
2000 Hz	71.3										
2500 Hz	72.7										
3150 Hz	79.3										
4000 Hz	85.4										
5000 Hz	89.7										
6300 Hz	90.4										

TL-93-320  
STC 65



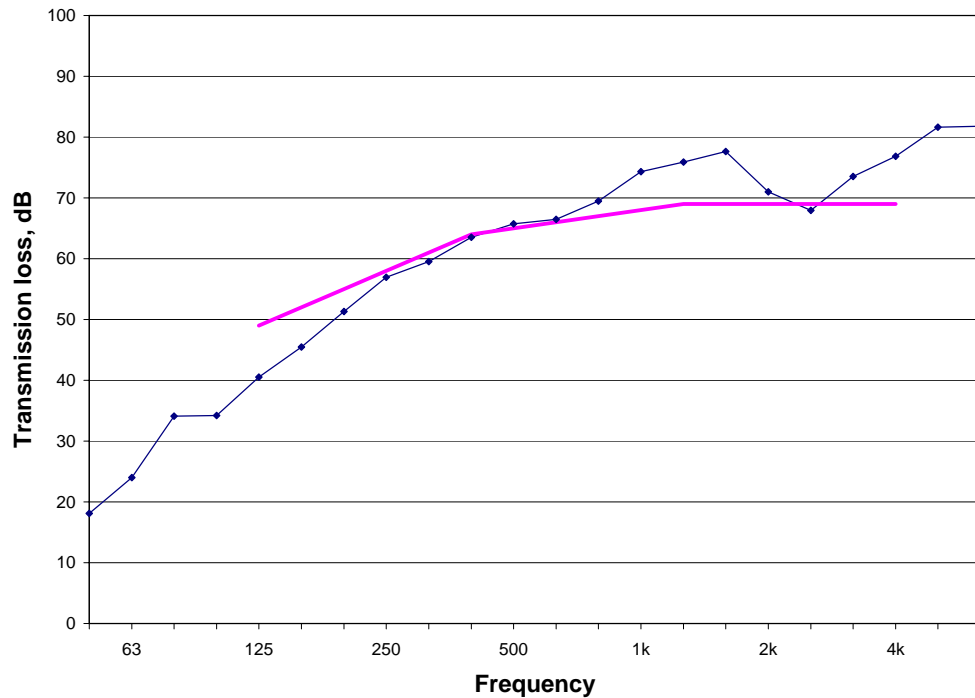
2G16\_SS40(610)\_MFB40\_AIR65\_SS40(610)\_MFB40\_2G16

Element	Description:
1	single layer of 16 mm type X gypsum board
2	single layer of 16 mm type X gypsum board
3	40 mm steel studs at 610 mm on centre
4	40 mm of mineral fibre insulation in cavity
5	65 mm gap filled with cross brace
6	40 mm steel studs at 610 mm on centre
7	40 mm of mineral fibre insulation in cavity
8	single layer of 16 mm type X gypsum board
9	single layer of 16 mm type X gypsum board



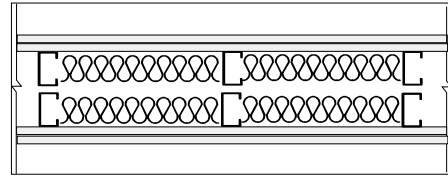
TestID	TL-93-321	TL-93-321	element 1	element 2	element 3	element 4	element 5	element 6	element 7	element 8	element 9
STC	65										
50 Hz	18.1	type	gypsum board	gypsum board	stud	insulation	gap	stud	insulation	gypsum board	gypsum board
63 Hz	24.0	material	CX	CX	steel	M2	cross brace	steel	M2	CX	CX
80 Hz	34.1	thickness mm	16	16	40	40	65	40	40	16	16
100 Hz	34.2	gauge			25			25			
125 Hz	40.5	spacing mm			610			610			
160 Hz	45.5	surface density kg/m <sup>2</sup>	11.3	11.5		2.2			2.2	11.5	11.5
200 Hz	51.3	linear density kg/m			0.4			0.4			
250 Hz	56.9	total weight kg	83.6	85.4	7.9	16.0		7.9	16.0	85.6	85.4
315 Hz	59.5	fastener spacing - edge mm	305	305						305	305
400 Hz	63.5	fastener spacing - field mm	305	610						610	305
500 Hz	65.7	fastener top track pattern	a	a						a	a
630 Hz	66.5	fastener base track pattern	a	a						a	a
800 Hz	69.5	stud attached to top track			yes			yes			
1000 Hz	74.3	double header									
1250 Hz	75.9	orientation	vertical	vertical						vertical	vertical
1600 Hz	77.6										
2000 Hz	71.0										
2500 Hz	68.0										
3150 Hz	73.5										
4000 Hz	76.8										
5000 Hz	81.6										
6300 Hz	81.8										

TL-93-321  
STC 65



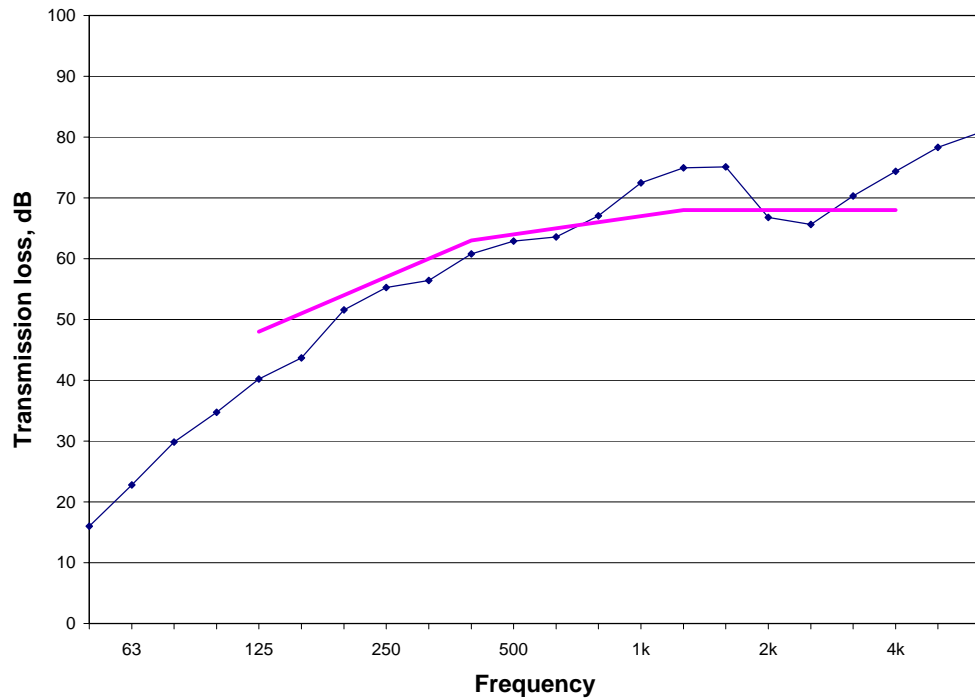
2G16\_SS65(610)\_GFB65\_AIR20\_SS65(610)\_GFB65\_2G16

Element	Description:
1	single layer of 16 mm type X gypsum board
2	single layer of 16 mm type X gypsum board
3	65 mm steel studs at 610 mm on centre
4	65 mm of glass fibre insulation in cavity
5	16 mm gap filled with cross brace
6	65 mm steel studs at 610 mm on centre
7	65 mm of glass fibre insulation in cavity
8	single layer of 16 mm type X gypsum board
9	single layer of 16 mm type X gypsum board



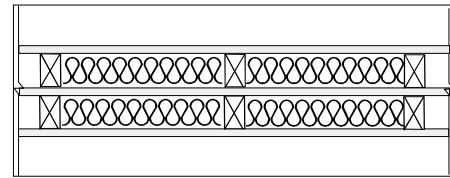
TestID	TL-93-302	TL-93-302	element 1	element 2	element 3	element 4	element 5	element 6	element 7	element 8	element 9
STC	64										
50 Hz	16.0	type	gypsum board	gypsum board	stud	insulation	gap	stud	insulation	gypsum board	gypsum board
63 Hz	22.8	material	CX	CX	steel	G1	cross brace	steel	G1	CX	CX
80 Hz	29.9	thickness mm	16	16	65	65	16	65	65	16	16
100 Hz	34.7	gauge			25			25			
125 Hz	40.2	spacing mm			610			610			
160 Hz	43.7	surface density kg/m <sup>2</sup>	11.4	11.4		0.5			0.5	11.6	11.5
200 Hz	51.6	linear density kg/m			0.5			0.5			
250 Hz	55.3	total weight kg	85.0	84.9	9.4	5.3		9.5	5.3	86.2	85.4
315 Hz	56.4	fastener spacing - edge mm	305	305						305	305
400 Hz	60.8	fastener spacing - field mm	305	610						610	305
500 Hz	62.9	fastener top track pattern	a	a						a	a
630 Hz	63.6	fastener base track pattern	a	a						a	a
800 Hz	67.0	stud attached to top track			yes			yes			
1000 Hz	72.5	double header									
1250 Hz	75.0	orientation	vertical	vertical						vertical	vertical
1600 Hz	75.1										
2000 Hz	66.8										
2500 Hz	65.6										
3150 Hz	70.3										
4000 Hz	74.4										
5000 Hz	78.3										
6300 Hz	80.8										

TL-93-302  
STC 64



G16\_WS90(406)\_GFB65\_AIR6\_WFB19\_WS90(406)\_GFB65\_G16

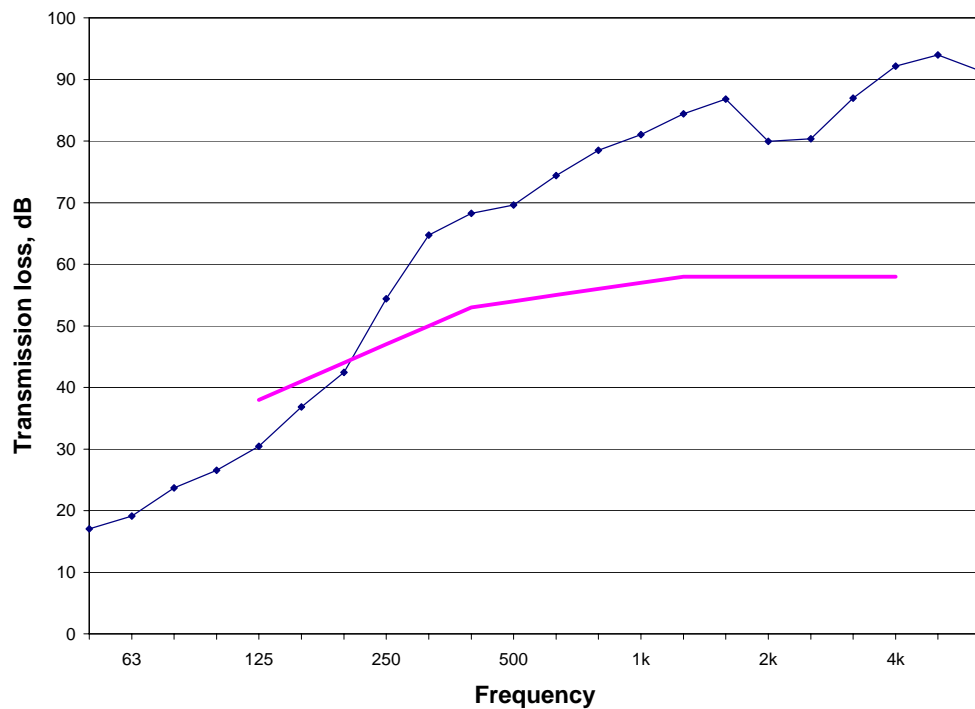
Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	65 mm of glass fibre insulation in cavity
4	25 mm gap filled with 19 mm fibre board and air
5	90 mm wood studs at 406 mm on centre
6	65 mm of glass fibre insulation in cavity
7	single layer of 16 mm type X gypsum board



TestID	TL-93-280
STC	54
50 Hz	17.1
63 Hz	19.1
80 Hz	23.7
100 Hz	26.5
125 Hz	30.4
160 Hz	36.8
200 Hz	42.5
250 Hz	54.4
315 Hz	64.7
400 Hz	68.3
500 Hz	69.6
630 Hz	74.4
800 Hz	78.5
1000 Hz	81.0
1250 Hz	84.4
1600 Hz	86.8
2000 Hz	80.0
2500 Hz	80.4
3150 Hz	87.0
4000 Hz	92.1
5000 Hz	94.0
6300 Hz	91.4

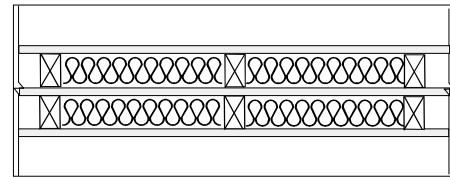
TL-93-280	element 1	element 2	element 3	element 4	element 5	element 6	element 7
type	gypsum board	stud	insulation	gap	stud	insulation	gypsum board
material	CX	wood	G1	FB + air	wood	G1	CX
thickness mm	16	90	65	25	90	65	16
gauge							
spacing mm		406			406		
surface density kg/m <sup>2</sup>	11.5		0.8			0.8	11.4
linear density kg/m		1.4			1.4		
total weight kg	85.3	37.0	6.0	41.5	37.9	6.0	84.5
fastener spacing - edge mm	406						406
fastener spacing - field mm	406						406
fastener top track pattern	c						c
fastener base track pattern	c						c
stud attached to top track		yes			yes		
double header							
orientation	vertical						vertical

TL-93-280  
STC 54



G16\_WS90(406)\_GFB65\_AIR9\_G16\_WS90(406)\_GFB65\_G16

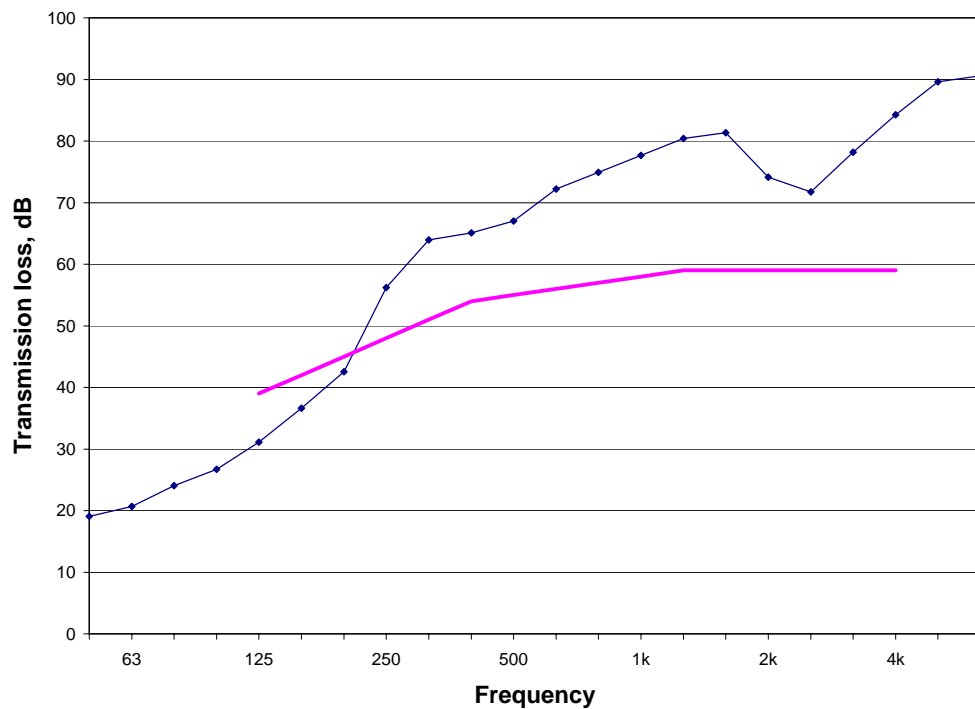
Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	65 mm of glass fibre insulation in cavity
4	25 mm gap filled with CX
5	90 mm wood studs at 406 mm on centre
6	65 mm of glass fibre insulation in cavity
7	single layer of 16 mm type X gypsum board



TestID	TL-93-297
STC	55
50 Hz	19.1
63 Hz	20.7
80 Hz	24.1
100 Hz	26.7
125 Hz	31.1
160 Hz	36.6
200 Hz	42.5
250 Hz	56.2
315 Hz	64.0
400 Hz	65.1
500 Hz	67.0
630 Hz	72.2
800 Hz	74.9
1000 Hz	77.7
1250 Hz	80.4
1600 Hz	81.3
2000 Hz	74.1
2500 Hz	71.7
3150 Hz	78.2
4000 Hz	84.3
5000 Hz	89.6
6300 Hz	90.6

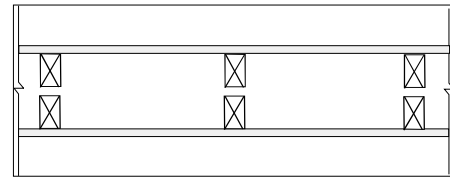
TL-93-297	element 1	element 2	element 3	element 4	element 5	element 6	element 7
type	gypsum board	stud	insulation	gap	stud	insulation	gypsum board
material	CX	wood	G1	CX	wood	G1	CX
thickness mm	16	90	65	25	90	65	16
gauge							
spacing mm		406			406		
surface density kg/m <sup>2</sup>	11.6		0.8			0.8	11.5
linear density kg/m		1.4			1.4		
total weight kg	86.0	37.0	6.0	84.1	37.9	12.0	85.6
fastener spacing - edge mm	406						406
fastener spacing - field mm	406						406
fastener top track pattern	c						c
fastener base track pattern	c						c
stud attached to top track		yes			yes		
double header							
orientation	vertical						vertical

TL-93-297  
STC 55



G16\_WS90(406)\_AIR105\_WS90(406)\_G16

Element	Description:
1	single layer of 16 mm type X gypsum board
2	90 mm wood studs at 406 mm on centre
3	25 mm gap filled with air
4	90 mm wood studs at 406 mm on centre
5	single layer of 16 mm type X gypsum board

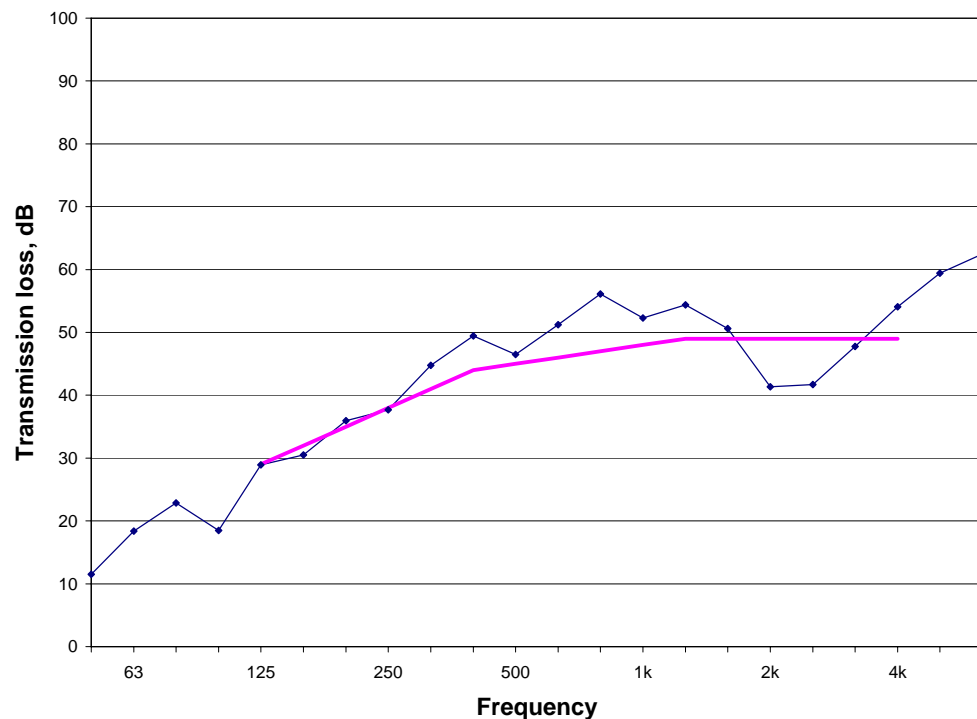


TestID	TL-93-261
STC	45
50 Hz	11.5
63 Hz	18.4
80 Hz	22.9
100 Hz	18.5
125 Hz	28.9
160 Hz	30.5
200 Hz	35.9
250 Hz	37.7
315 Hz	44.8
400 Hz	49.4
500 Hz	46.5
630 Hz	51.2
800 Hz	56.1
1000 Hz	52.3
1250 Hz	54.4
1600 Hz	50.6
2000 Hz	41.4
2500 Hz	41.7
3150 Hz	47.8
4000 Hz	54.1
5000 Hz	59.4
6300 Hz	62.5

TL-93-261

	element 1	element 2	element 3	element 4	element 5
type	gypsum board	stud	gap	stud	gypsum board
material	CX	wood	air	wood	CX
thickness mm	16	90	25	90	16
gauge					
spacing mm		406		406	
surface density kg/m <sup>2</sup>	11.6				11.4
linear density kg/m		1.4		1.4	
total weight kg	86.1	37.0		37.9	84.4
fastener spacing - edge mm	406				406
fastener spacing - field mm	406				406
fastener top track pattern	c				c
fastener base track pattern	c				c
stud attached to top track		yes		yes	
double header					
orientation	vertical				vertical

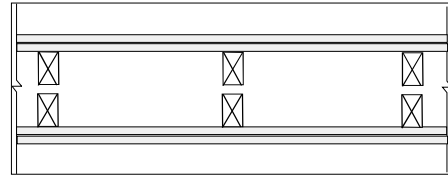
TL-93-261  
STC 45





2G13\_WS90(406)\_AIR25\_WS90(406)\_2G13

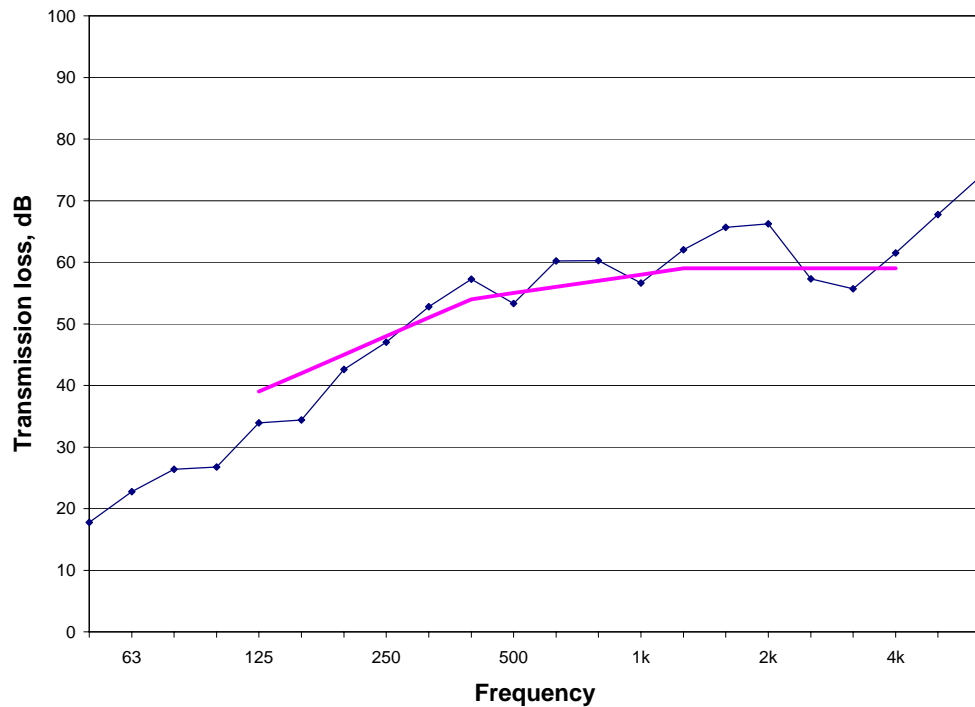
Element	Description:
1	single layer of 13 mm gypsum board
2	single layer of 13 mm gypsum board
3	90 mm wood studs at 406 mm on centre
4	25 mm gap filled with air
5	90 mm wood studs at 406 mm on centre
6	single layer of 13 mm gypsum board
7	single layer of 13 mm gypsum board



TestID	TL-93-276
STC	55
50 Hz	17.8
63 Hz	22.7
80 Hz	26.4
100 Hz	26.8
125 Hz	33.9
160 Hz	34.4
200 Hz	42.6
250 Hz	47.0
315 Hz	52.8
400 Hz	57.3
500 Hz	53.3
630 Hz	60.2
800 Hz	60.3
1000 Hz	56.6
1250 Hz	62.1
1600 Hz	65.6
2000 Hz	66.3
2500 Hz	57.3
3150 Hz	55.7
4000 Hz	61.5
5000 Hz	67.7
6300 Hz	73.9

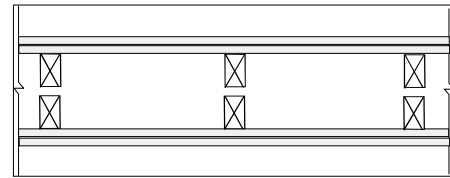
TL-93-276	element 1	element 2	element 3	element 4	element 5	element 6	element 7
type	gypsum board	gypsum board	stud	gap	stud	gypsum board	gypsum board
material	B	B	wood	air	wood	B	B
thickness mm	13	13	90	25	90	13	13
gauge							
spacing mm			406		406		
surface density kg/m <sup>2</sup>	8.3	8.4				8.2	8.3
linear density kg/m			1.4		1.4		
total weight kg	61.9	62.1	37.0		37.9	61.1	62.0
fastener spacing - edge mm	406	610				610	406
fastener spacing - field mm	406	610				610	406
fastener top track pattern	c	c				c	c
fastener base track pattern	c	c				c	c
stud attached to top track			yes		yes		
double header							
orientation	vertical	vertical				vertical	vertical

TL-93-276  
STC 55



2G13\_WS90(610)\_AIR25\_WS90(610)\_2G13

Element	Description:
1	single layer of 13 mm gypsum board
2	single layer of 13 mm gypsum board
3	90 mm wood studs at 610 mm on centre
4	25 mm gap filled with air
5	90 mm wood studs at 610 mm on centre
6	single layer of 13 mm gypsum board
7	single layer of 13 mm gypsum board



TestID	TL-93-287
STC	55
50 Hz	21.5
63 Hz	24.4
80 Hz	25.1
100 Hz	24.9
125 Hz	33.8
160 Hz	37.1
200 Hz	45.3
250 Hz	47.0
315 Hz	43.5
400 Hz	50.2
500 Hz	55.9
630 Hz	56.9
800 Hz	55.5
1000 Hz	54.1
1250 Hz	60.4
1600 Hz	65.0
2000 Hz	66.2
2500 Hz	60.2
3150 Hz	56.1
4000 Hz	61.3
5000 Hz	67.6
6300 Hz	73.7

TL-93-287	element 1	element 2	element 3	element 4	element 5	element 6	element 7
type	gypsum board	gypsum board	stud	gap	stud	gypsum board	gypsum board
material	B	B	wood	air	wood	B	B
thickness mm	13	13	90	25	90	13	13
gauge							
spacing mm			610		610		
surface density kg/m <sup>2</sup>	8.2	8.3				8.3	8.3
linear density kg/m			1.2		1.2		
total weight kg	60.9	61.4	27.9		27.9	61.8	61.9
fastener spacing - edge mm	305	610				610	305
fastener spacing - field mm	305	610				610	305
fastener top track pattern	a	c				c	a
fastener base track pattern	a	c				c	a
stud attached to top track			yes		yes		
double header							
orientation	vertical	vertical				vertical	vertical

TL-93-287  
STC 55

