

Weighted sound reduction index R_w according to EN ISO 717-1

MLV assembly with a soft layer

Sound insulation of the assembly: **MLV layer + soft layer** · same construction principle as the NovaSilence and FrontSilence door panels

WEIGHTED SOUND REDUCTION INDEX

$R_w = 32 \text{ dB}$

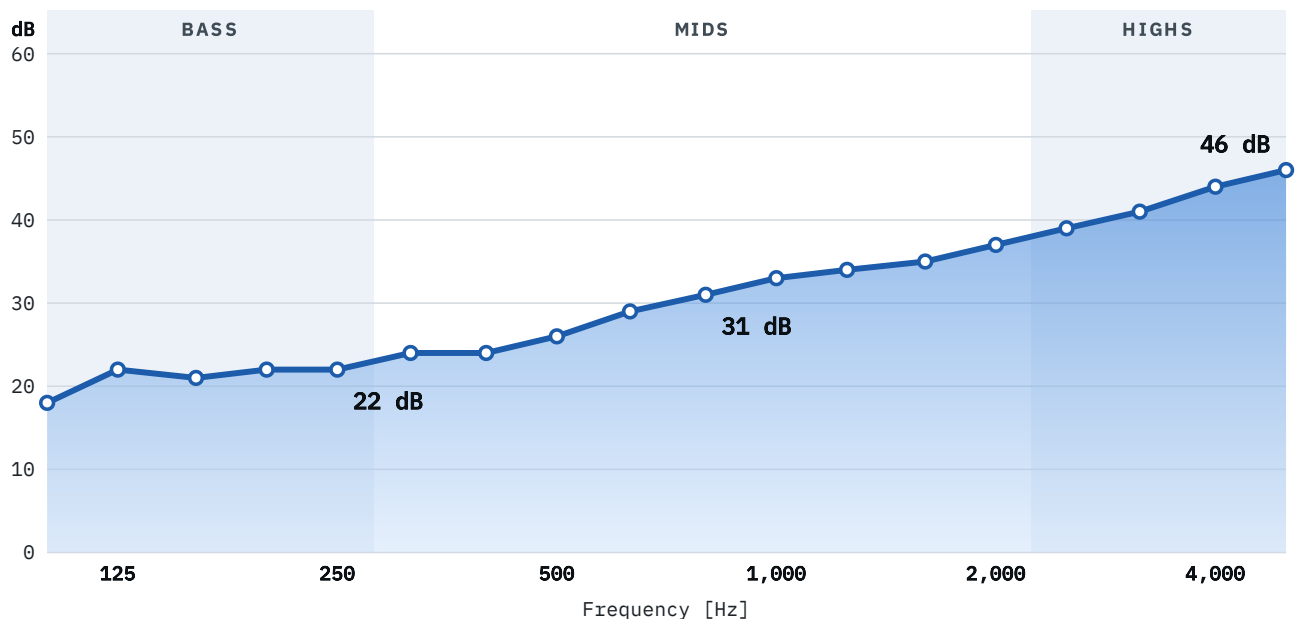
$(C; C_{tr}) = (-1; -4) \text{ dB}$

1. Measured sound reduction in one-third octave bands

F [Hz]	100	125	160	200	250	315	400	500	630	800	1,000	1,250	1,600	2,000	2,500	3,150	4,000	5,000
R [dB]	18	22	21	22	22	24	24	26	29	31	33	34	35	37	39	41	44	46

Source of values: report RAL™-TL13-133, page 1 (annex to this document).

2. Sound reduction by frequency



— sound reduction R measured in the laboratory (in decibels)

3. Calculation according to EN ISO 717-1

F [Hz]	R [dB]	SHIFTED REF. CURVE [dB]	UNFAVOURABLE DEVIATION [dB]
100	18	13	–
125	22	16	–
160	21	19	–
200	22	22	–
250	22	25	3
315	24	28	4
400	24	31	7
500	26	32	6
630	29	33	4
800	31	34	3
1,000	33	35	2
1,250	34	36	2
1,600	35	36	1
2,000	37	36	–
2,500	39	36	–
3,150	41	36	–
Sum of unfavourable deviations (100–3,150 Hz) — limit of the standard ≤ 32 dB			32

The reference curve of the standard is shifted in steps of 1 dB until the sum of unfavourable deviations (bands where R lies below the curve) does not exceed 32 dB. The value of the shifted curve at 500 Hz is $R_w = 32$ dB. Adaptation terms $C = -1$ dB (pink noise) and $C_{tr} = -4$ dB (traffic noise) express the influence of the noise source spectrum.

4. Underlying laboratory measurement

Laboratory	Riverbank Acoustical Laboratories, 1512 S Batavia Ave, Geneva, IL, USA — NVLAP accreditation (Lab Code 100227-0), ISO/IEC 17025:2017
Report	RAL™-TL13-133, measured 25 Jun 2013
Method	ASTM E90-09, laboratory measurement of airborne sound insulation between two reverberation rooms
Specimen	Door / Wall / Sound Barrier – reinforced MLV with foam, nylon faces; 0.91×2.13 m, thickness 2.9 cm, area 1.95 m^2

5. Notice

This document was issued by VocalBoothToGo-EU s.r.o. It is not a laboratory report and Riverbank Acoustical Laboratories is not its author. The R_w value is calculated according to EN ISO 717-1 from one-third octave sound reduction values measured by the laboratory using the ASTM E90 method.

The results apply to the tested assembly. The NovaSilence and FrontSilence door panels are built on the same principle but were not measured separately. The laboratory's original report is attached unchanged as an annex.

Annex: Riverbank Acoustical Laboratories report RAL™-TL13-133 (2 pages, original).

Riverbank Acoustical Laboratories (RAL)TM / An Alion Science Technical Center (RALVer 10.1)Laboratory Measurement of Airborne Sound Transmission Loss
of Building Partitions ASTM E 90-09/NVLAP 08/P06

TEST NUMBER: TL13-133 TEST DATE: JUNE 25, 2013

CLIENT: MoversSupplies.com

DESIGNATION: Door / Wall / Sound Barrier Reinforced MLV plus Foam - Nylon Faces Source

DIMENSIONS: 36" wide x 84" high x 1.125" thick

AREA: 21.0 ft²

WEIGHT: 33 lbs AREA WEIGHT: 1.57 lbs/ft²

SPECIMEN DETAILS:

SOURCE ROOM: Room 3 Volume = 4929.46 ft³ Area = 1690.3 ft²

RECEIVE ROOM: Room 2 Volume = 6297.6 ft³ Area = 2066.2 ft²

FILE NAME: TL13_133_130625_A.doc

FREQ. (Hz)	T.L. (dB)	UNC. (dB) 95%CL	DEF. (dB) <CONT	FREQ. (Hz)	T.L. (dB)	UNC. (dB) 95%CL	DEF. (dB) <CONT
100	18	0.58		800	31	0.21	3
125	22	0.59		1k	33	0.14	2
160	21	0.35		1.25k	34	0.10	2
200	22	0.41		1.6k	35	0.09	1
250	22	0.39	3	2k	37	0.10	
315	24	0.28	4	2.5k	39	0.11	
400	24	0.33	7	3.15k	41	0.09	
500	26	0.32	6	4k	44	0.08	
630	29	0.17	4	5k	46	0.05	

Sound Transmission Class (STC) = 32

Total Deficiencies = 32

Extended Frequency Data

FREQ.	T.L.	UNC.	DEF.	FREQ.	T.L.	UNC.	DEF.
40	23	0.94		6.3k	47	0.08	
50	15	0.95		8k	49	0.06	
63	12	0.82		10k	46	0.08	
80	17	0.61					

R: 32
OITC: 26

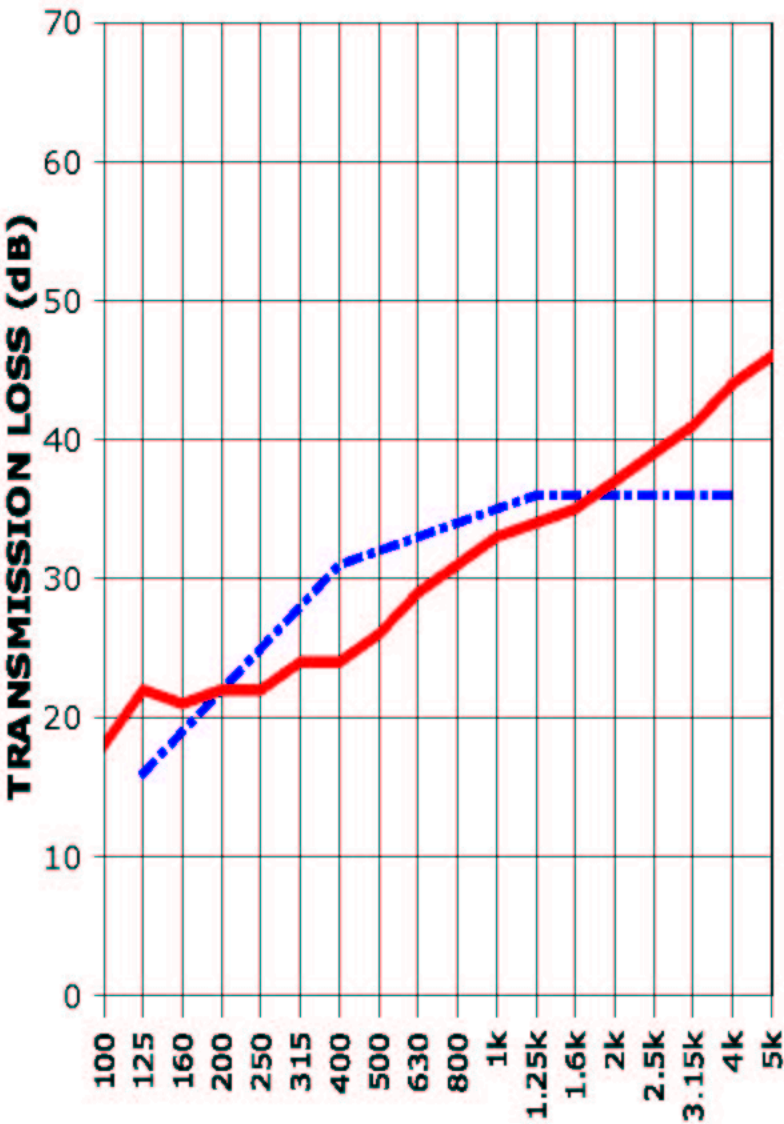
Test Conducted by



Marc Sciak

This single report page and accompanying graph contain the instantaneous raw data as provided to the client after testing of the specimen. This data, although accurate, is incomplete without the full specimen description, mounting details and signature pages. The full report referenced by the RAL test number above should be consulted for further information regarding these results.

SOUND TRANSMISSION REPORT
RAL - TL13-133



FREQUENCY (Hz)

STC = 32



TRANSMISSION LOSS
SOUND TRANSMISSION LOSS CONTOUR