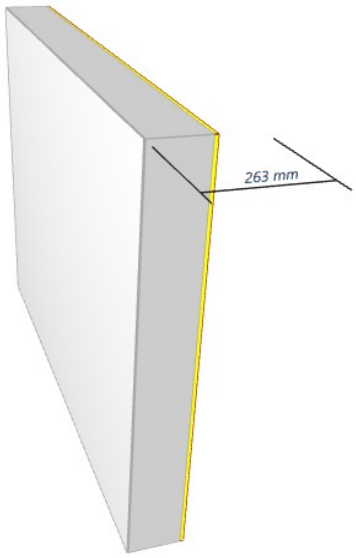
INSUL Sound Insulation Prediction (v9.0.19)

Authorised INSUL user:Roldan

Notes:

- Key No.
Job Name:
Job No.:
Date:16/12/2019
File Name:

Acoustic prediction STC 41

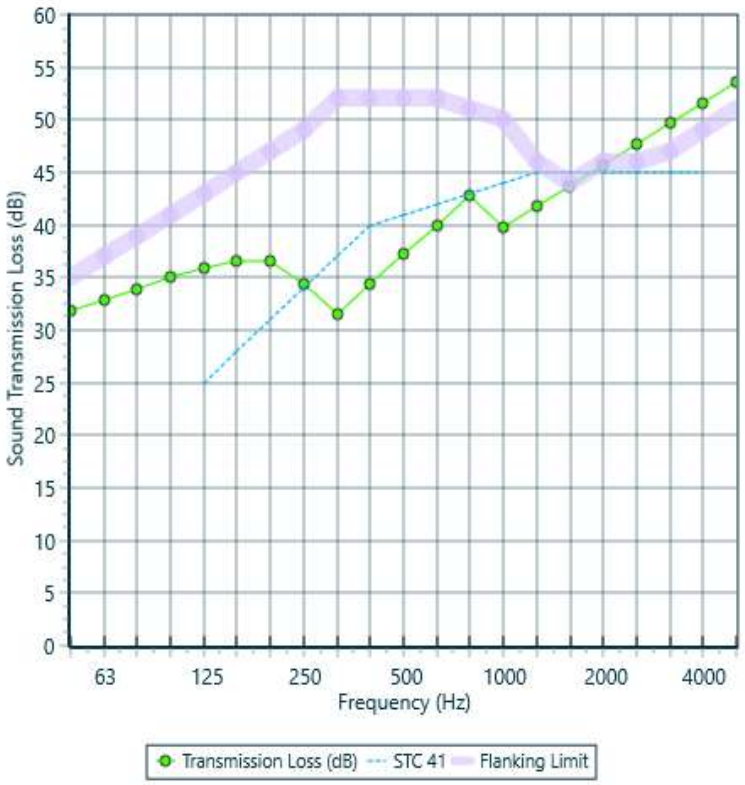


System description (from left to right side of graphic)

Panel 1 : 1 x 3 mm Concrete
+ 1 x 150 mm Hebel Block
+ 1 x 10 mm Yeso Estuco
Frame zweischalig massiv (90 mm x 45 mm)
Stud spacing 400 mm
Partition surface mass = 119 kg/m²
Partition width = 163 mm

freq.(Hz)	TL(dB)	Deviations
50	32	
63	33	
80	34	
100	35	
125	36	0
160	37	0
200	37	0
250	34	0
315	32	-5
400	34	-6
500	37	-4
630	40	-2
800	43	0
1000	40	-4
1250	42	-3
1600	44	-1
2000	46	0
2500	48	0
3150	50	0
4000	52	0
5000	54	
Sum		-25

Panel Size : 2,7 m x 4,0 m



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Glossary

dB	Decibel. The unit of sound level.
Frequency	The number of pressure fluctuation cycles per second of a sound wave. Measured in units of Hertz (Hz).
Octave band	Sound, which can occur over a range of frequencies, may be divided into octave bands for analysis. The audible frequency range is generally divided into 7 octave bands. The octave band frequencies are 63Hz, 125Hz, 250Hz, 500Hz, 1kHz, 2kHz and 4kHz.
Transmission loss (TL)	The attenuation of sound pressure brought about by a building construction. Transmission loss is specified at each octave or one third octave frequency band.
STC	Sound Transmission Class A single number system for quantifying the transmission loss through a building element. STC is based upon typical speech and domestic noises, and thus is most applicable to these areas. STC of a building element is measured in approved testing laboratories under ideal conditions. (refer to ASTM E413 Classification for Rating Sound Insulation)