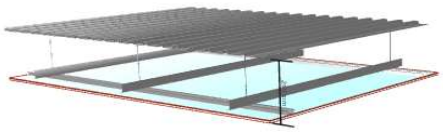
INSUL Sound Insulation Prediction (v9.0.19)

Authorised INSUL user:Roldan

Notes:

- Key No.
Job Name:
Job No.:
Date:2/3/2020
File Name:

Acoustic prediction STC 39



System description (from top to bottom of graphic)

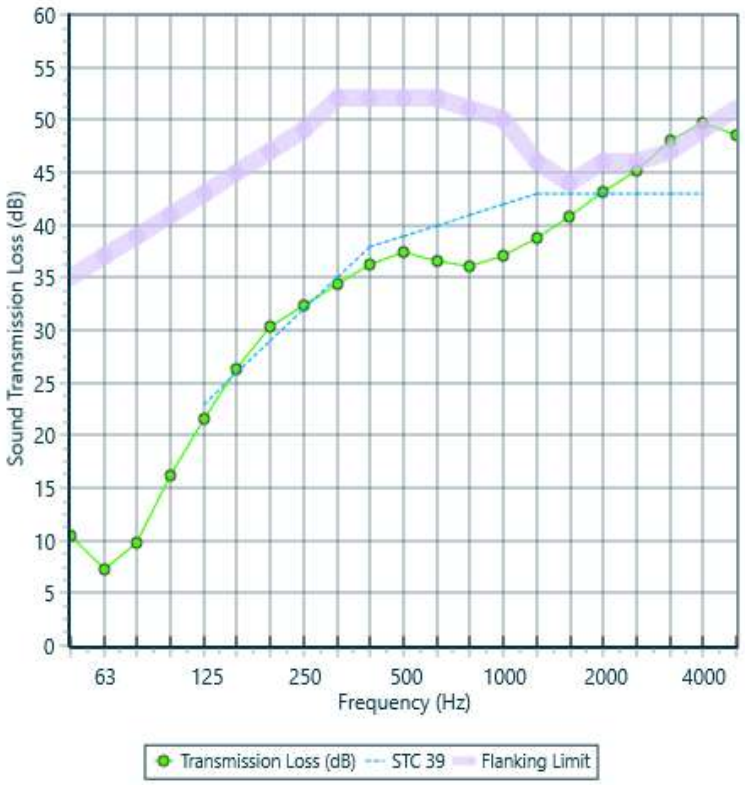
Panel 1 : 1 x 0,6 mm Roof Cladding Dimondclad Rib 20
Frame Suspentes métalliques (2,5E2 mm x 45 mm)
Stud spacing 600 mm
Cavity Width 250 mm
Infill
Panel 2 : 1 x 8 mm Lexan (Polycarbonate)

Partition surface mass = 15,8 kg/m²
Partition width = 259 mm

freq.(Hz)	TL(dB)	Deviations
50	10	
63	7	
80	10	
100	16	
125	22	-1
160	26	0
200	30	0
250	32	0
315	34	-1
400	36	-2
500	37	-2
630	37	-3
800	36	-5
1000	37	-5
1250	39	-4
1600	41	-2
2000	43	0
2500	45	0
3150	48	0
4000	50	0
5000	49	
Sum		-25

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

Mass-air-mass resonant frequency = : 62 Hz



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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)