

Sound Insulation Prediction (v9.0.24)

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Margin of error is generally within $R_w \pm 3$ dB

Clement Acoustics - Key No. 6516

Job Name:

Initials:AndyThomas

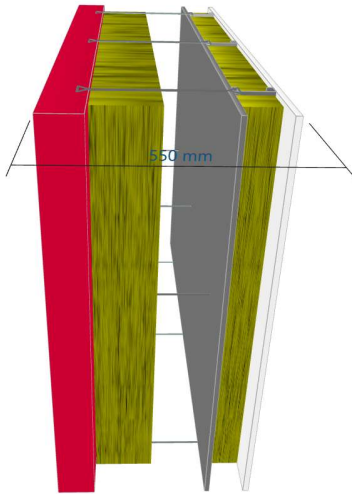
Job No.:

Date:20/09/2023

File Name:Bay Study 01.ixl



Notes:



R_w 67 dB
 C -2 dB
 Ctr -5 dB

Mass-air-mass resonant frequency = 21 Hz, 76 Hz

Panel Size = 2.7 m x 4.0 m

Partition surface mass = 196 kg/m²

System description

Panel 1 : 1 x 103 mm Brick (p:1600 kg/m³,E:8.9GPa,η:0.01, ps:165 kg/m², fc:267 Hz)

Frame: Butterfly Tie (3.2E2 mm x 45 mm), Stud spacing 600 mm; Cavity Width 320 mm, 1 x Fibreglass (10kg/m³) Thickness 170 mm

Panel 2 : 1 x 12 mm Fibre Cement (p:1560 kg/m³,E:7.3GPa,η:0.01, ps:18.7 kg/m², fc:2500 Hz)

Frame: Steel Stud (1.0-1.6mm) (1E2 mm x 38 mm), Stud spacing 600 mm; Cavity Width 100 mm, 1 x Fibreglass (10kg/m³) Thickness 100 mm

Panel 3 : 1 x 15 mm Gyproc Wallboard 15mm (p:653 kg/m³,E:1.1GPa,η:0.01, ps:9.79 kg/m², fc:3277 Hz)

freq.(Hz)	R(dB)	R(dB)
50	43	
63	45	45
80	48	
100	51	
125	53	53
160	54	
200	54	
250	52	54
315	60	
400	62	
500	64	63
630	65	
800	67	
1000	69	68
1250	70	
1600	71	
2000	72	72
2500	72	
3150	70	
4000	78	73
5000	79	

