

Impact Sound Prediction (v6.3)

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- Key No. 0067

Margin of error for Impact Sound Prediction is generally within $L_{n,w} \pm 5$ dB

Job Name:

Notes:

Job No.:

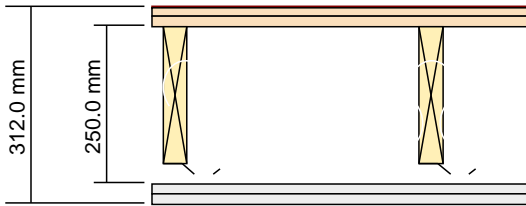
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Date: 10 Nov 10

Initials:Example

File Name: 101110 2x15mm plywood timber joists 2x16mm plasterboard.ins

Comparison with measured laboratory test for 2 layers of 15mm plywood, cavity insulation and timber joists and a ceiling comprising 2 layers of 16mm plasterboard resiliently connected



$L_{n,w}$ 58 dB
C1 -1 dB

System description

Floor Cover: None

Panel 1 Outer layer: 2 x 15.0 mm Plywood- (m=13.6 kg/m², f_c =1913 Hz, damping=0.01)

Joists: 38.0 mm x 235.0 mm @ 405 mm (406.0 (kg/m³), Youngs Modulus =5(GPa), damping=0.04)

Cavity: Resilient clip or channel, Infill R 1.8 Pink Batts Thickness 152 mm

Panel 2 Inner layer: 2 x 16.0 mm Standard Gib Board- (m=23.3 kg/m², f_c =2060 Hz, damping=0.01)

Mass-air-mass resonant frequency =41 Hz

Panel Size 4.7x3.7 m

frequency (Hz)	L_n (dB)	L_w (dB)
50	77	
63	63	65
80	64	
100	63	
125	62	63
160	63	
200	67	
250	62	62
315	59	
400	56	
500	56	57
630	59	
800	55	
1000	50	51
1250	50	
1600	48	
2000	50	47
2500	44	
3150	39	
4000	34	33
5000	30	

