

Impact Sound Prediction (v7.0.10)

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- Key No. 1715

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

Job Name: JustRite

Job No.: 1508201

Page No.:

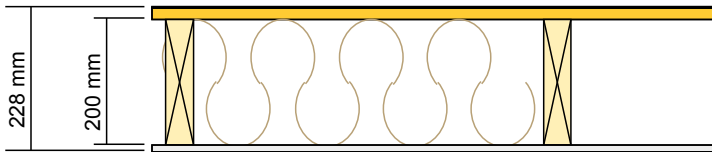
Notes:

Date: 15 Aug 13

Initials: NH

Cavity filled with Knauf Supafil @ 18kg/m³

File Name: JustRite 2 15082013.ixl



$L_{n,w}$ 69 dB

C_1 -1 dB

System description

Floor Cover: Custom floor covering

Panel 1 Outer layer: 1 x 18.0 mm Particle Board- ($m=11.9$ kg/m², $f_c=1768$ Hz, Damping=0.03) Profile

Joists: 45.0 mm x 200.0 mm @ 600 mm (490.0 (kg/m³), Youngs Modulus =5(GPa), Damping=0.04)

Cavity: Solid joist(timber or Twinaplate), Infill Knauf Supafil Insulation 18kg/m³ Thickness 200 mm

Panel 2 Inner layer: 1 x 10.0 mm Gypsum plasterboard- ($m=6.9$ kg/m², $f_c=3798$ Hz, Damping=0.01) Profile

Mass-air-mass resonant frequency =64 Hz

Panel Size 2.4x2.4 m

| frequency (Hz) | L_n (dB) | L_n (dB) |
|----------------|------------|------------|
| 50 | 81 | |
| 63 | 83 | 87 |
| 80 | 82 | |
| 100 | 78 | |
| 125 | 73 | 80 |
| 160 | 70 | |
| 200 | 69 | |
| 250 | 69 | 78 |
| 315 | 77 | |
| 400 | 73 | |
| 500 | 72 | 77 |
| 630 | 71 | |
| 800 | 69 | |
| 1000 | 64 | 71 |
| 1250 | 59 | |
| 1600 | 58 | |
| 2000 | 50 | 59 |
| 2500 | 49 | |
| 3150 | 53 | |
| 4000 | 55 | 58 |
| 5000 | 47 | |

