

Acoustic Test Certificate

Monday November 11th, 2019

Supplier: FloorTex (8 Whiteside Road, Clayton South, VIC, 3169, Australia)

Sample Description: PENGUIN HYBRID FLOORING BOARD

Test Method: AS/ISO 140:7-2006

Acoustic Test Data:

| 1/3 Octave Band Centre Frequency (Hz) | Impact Sound Pressure Level L'_{nT} (dB) | | |
|---|--|----------------------------|---------------------------------|
| | Base Floor | PENGUIN HYBRID FLOORING | $\Delta L'_{nT}$ Test Sample |
| 100 | 53.9 | 60.3 | -2.4 |
| 125 | 62.8 | 63.0 | 1.8 |
| 160 | 64.9 | 65.0 | 1.8 |
| 200 | 65.2 | 65.7 | 1.7 |
| 250 | 66.5 | 66.6 | 5.0 |
| 315 | 62.0 | 61.9 | 7.0 |
| 400 | 64.0 | 63.5 | 9.9 |
| 500 | 65.7 | 65.1 | 12.8 |
| 630 | 65.8 | 65.5 | 13.2 |
| 800 | 66.1 | 65.6 | 16.6 |
| 1000 | 67.4 | 67.0B | 22.9 |
| 1250 | 67.9 | 67.0B | 27.0 |
| 1600 | 67.4 | 66.2B | 31.4 |
| 2000 | 67.3 | 65.1B | 34.0 |
| 2500 | 65.8 | 62.9B | 34.7 |
| 3150 | 69.2 | 64.5B | 41.3 |
| 4000 | 71.2 | 65.9B | 45.7 |
| 5000 | 67.0 | 59.2B | 44.0 |
| | $L'_{nT,w} = 74$ | $L'_{nT,w} = 47$ | $\Delta L_{w} = 19$ |

The impact sound insulation performance of a system is denoted by a single value descriptor, the weighted impact sound insulation $L_{n,w}$ (for laboratory tested rating) or $L'_{nT,w}$ (for field tested rating). The single value descriptor allows for easy comparisons between different systems. The lower the number, the better the impact sound insulation performance.

The rating of the system is determined by comparing the measured noise levels in the receiving room against a set of reference values between one-third-octave band centre frequency ranges of 100Hz to 3150Hz, as specified in AS/NZS ISO 717.2-2004.

The base floor construction of 200mm concrete slab with 35mm furring channels and a single layer of 10mm standard plasterboard ceiling, achieved a weighted impact sound insulation rating of $L'_{nT,w}$ of 74.

The floor system consisting of the 6mm thick Penguin Hybrid Flooring covering on top of the base floor achieved a weighted impact sound insulation rating of $L'_{nT,w}$ of 47, improving the base floor performance of $\Delta L'_{nT,w}$ by 19 dB.

The test sample of 6mm thick Penguin Hybrid Flooring was placed on top of the bare slab as shown in the Figure below.



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