

Acoustic Test Certificate

Tuesday May 26th, 2020

Supplier: Australian Select Timber (61-63 Discovery Road, Dandenong, VIC, 3175, Australia)

Sample Description: 2mm Foam Underlay

Date Tested: July 2016 (Tested by FORAY Laboratories)

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	2mm Foam Underlay	$\Delta L'_{nT}$ Test Sample
100	56.9	55.7	1.2
125	56.3	55.9	0.4
160	62.4	61.1	1.3
200	62.9	61.6	1.3
250	58.9	57.5	1.4
315	59.2	57.5	1.7
400	57.6	55.5	2.1
500	60.3	56.6	3.7
630	61.7	55.0	6.7
800	61.1	49.9	11.2
1000	62.2	45.8	16.4
1250	62.7	41.6	21.1
1600	62.6	37.3	25.3
2000	62.4	34.2	28.2
2500	63.0	36.7	26.3
3150	68.5	34.2	34.4
4000	70.4	32.5	37.9
5000	66.5	33.1	33.4
	$L'_{nT,w} = 70$	$L'_{nT,w} = 53$	$\Delta L_{w} = 17$

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 70.

The floor system consisting of the 2 mm thick foam underlay and 15 mm engineered timber floor covering on top of the base floor achieved a weighted impact sound insulation rating of $L'_{nT,w}$ of 53, improving the base floor performance of $\Delta L'_{nT,w}$ by 17 dB.



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