

Contrix Pty Ltd

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IMPACT NOISE TESTING OF HARD FLOOR COVERING

Elite Wooden Floors: Hybrid Flooring - Collection 12mm

Contrix Pty Ltd was requested to perform tests on the selected hard floor covering within the residential apartment in Zetland NSW.

The aim of conducting this impact noise test was to determine the acoustic rating of the selected hard floor covering (Hybrid Flooring - Collection 12mm with and without Regupol® Sonus Multi 3mm acoustic underlays) and the results are to be used for design guidance only.

All measurements and assessment procedures were conducted in compliance with the standards:

- AS/NZS ISO 140.7:2006, titled "Field measurements of impact sound insulation of floors", and
- ISO 717.2-2004, titled "Rating of sound insulation in buildings and of building elements".

Tests were conducted within open plan living/dining/kitchen area of residential apartment on Level 12 (sound source room) and Level 11 (receiver room) directly below on Friday 2nd August 2024. A summary page of testing results can be found on page 2, followed by detailed technical data sheets.

Based on our test results and calculations, Hybrid Flooring - Collection 12mm tested within the residential apartment in Zetland NSW achieves the acoustical ratings of:

- Measured Weighted Standardised Sound Level Different, L'_{nTw} 42 ~ 44
- Field Impact Insulation Class, FIIC 64 ~ 65
- AAAC Star Rating 5

IMPACT NOISE INSULATION FIELD TEST REPORT SUMMARY

Testing Date:	Friday 2 nd August 2024
Prepared For:	EWF Floors
Testing Location:	Residential Apartment in Zetland NSW
Flooring System Tested:	Hybrid Flooring - Collection 12mm
Separating partition system:	Approximately 200 mm reinforced concrete slab Suspended ceiling cavity of 80 to 100 mm with 10mm or 13mm
Source Room:	plasterboard ceiling
Receiver Room:	Open plan living/dining/kitchen area on level 12

Test Results						
Test #	Floor covering	Underlay	Acoustic Performance (Open plan living/dining/kitchen area on level 12)			
			L' _{nTw}	FIIC	AAAC Star Rating	Δ L' _{nTw}
01	Hybrid Flooring - Collection 12mm	Built-in	44	64	5	14
02	Hybrid Flooring - Collection 12mm	Regupol® Sonus Multi 3mm	42	65	5	16

Sound Source:	Tapping Machine TM004 S/N 59005
Measuring Device:	NTi-XL2 precision spectrum analyser S/N A2A-11580-E0

Measurements were conducted in accordance with:

- Australian Standard AS ISO 717.2-2004, Acoustics - Rating of sound insulation in buildings and of building elements;
- ASTM E1007-14 - Standard Test Method for Field Measurement of Tapping Machine Impact Sound Transmission Through Floor-Ceiling Assemblies and Associated Support Structure”, and
- International Standard ISO 16283-02:2015, Acoustics – Field measurement of sound insulation in buildings and of building elements.

Tested By:	Michael Fan Chiang BE (Mech)., MAAS Consultant	Report Date: 5 th August 2024
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Disclaimers:

1. The information provided in this report relates to sound insulation of floor covering only.
2. Contrix Pty Ltd does not supply and install any flooring products, therefore, not responsible or liable for any product defects.
3. It is imperative to strictly adhere to the installation guidelines provided by the supplier or installation instructions (if any). Contrix Pty Ltd bears no liability in the event of non-compliance with these instructions.
4. This testing report is site-specific and only applies to the subject premise and product(s) tested as specified in this document.
5. The acoustic rating typically varies by up to 3 L'nTw rating points, influenced by the placement of the tapping machine, testing locations within the unit, and the junction details between the floorboards, skirting, scotia, and walls. Many strata management and certifying authorities permit a tolerance of 3 L'nTw rating points. Furthermore, deviations of up to 5 L'nTw rating points have been recorded in rare cases.
6. The test results detailed in this report are intended solely for use as design guidelines and should not be interpreted as formal certification of the tested products.
7. The use of any glue or adhesive can negatively impact the acoustic rating. Based on previous testing data, a degradation of up to 5 L'nTw has been recorded.
8. It is highly recommended to engage a qualified acoustic consultant (Contact Contrix Pty Ltd on +61 425 240 555 or other qualified consultants) to conduct in-situ testing (field testing) prior to flooring installation.

Technical Data Sheet - Standardised Impact Sound Pressure Level

Impact Sound Insulation Testing of Floorboards

EWF Floors: Hybrid Floor - Collection 12mm

Testing Date: Friday, 2 August 2024

Test No.: 01

Client/Owner: EWF Floors

Testing Location: Residential Apartment in Zetland NSW

Floor Finish: Hybrid Floor - Collection 12mm

Acoustic Underlay: Built-in with 2mm IXPE underlay

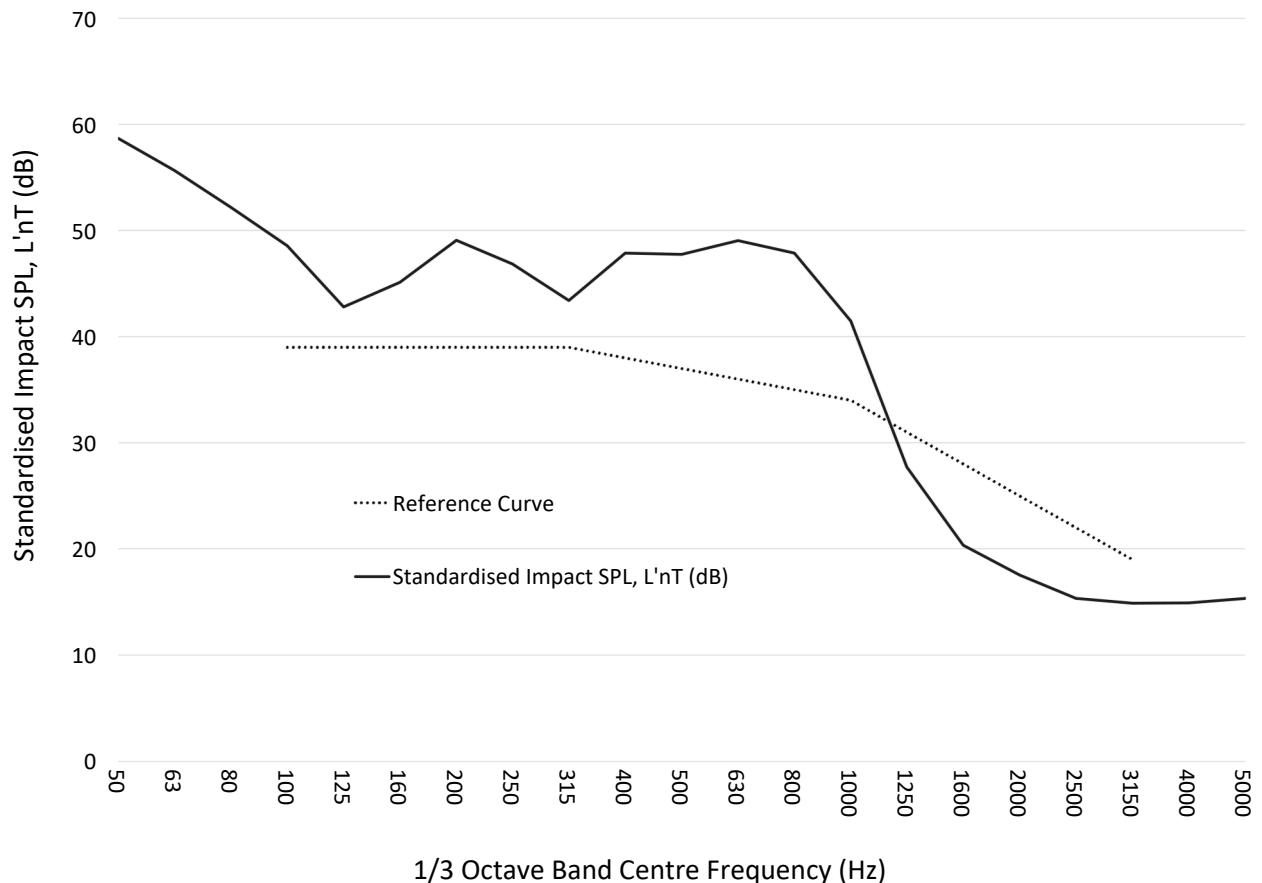
Sub-base & ceiling below: Reinforced concrete slab

Suspended ceiling cavity with plasterboard ceiling

Source Room: Living area on 12th floor level

Receiver Room: Living area on 11th floor level

Approx. receiver room vol: 57.24



1/3 Octave Band Centre Frequency (Hz)	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
L'nT [dB]	58.7	55.7	52.2	48.6	42.8	45.1	49.1	46.8	43.4	47.9	47.7	49.1	47.9	41.5	27.7	20.3	17.5	15.3	14.9	14.9	15.3

Acoustical Rating	Reference/Guideline
Measured Weighted Standardised Sound Level Difference, L'nTw	44
Field Impact Isolation Class, FIIC	64
AAAC Star Rating	5
	ASISO717.2 - 2004
	ASTME1007-14
	AAAC Guideline

Testing Date :	Friday, 2 August 2024	Contrix Pty Ltd
Reference No.:	3837	ABN: 95 632 593 625
Testing Organisation:	Contrix Pty Ltd	E-mail: info@contrix.com.au
Tested By:	Michael Fan Chiang	Tel: +61 425 240 555
	BE(Mech)., MAAS	www.contrix.com.au/acoustics

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Technical Data Sheet - Standardised Impact Sound Pressure Level

Impact Sound Insulation Testing of Floorboards

EWF Floors: Hybrid Floor - Collection 12mm

Testing Date: Friday, 2 August 2024

Test No.: 02

Client/Owner: EWF Floors

Testing Location: Residential Apartment in Zetland NSW

Floor Finish: Hybrid Floor - Collection 12mm

Acoustic Underlay: Regupol® Sonus Multi 3mm

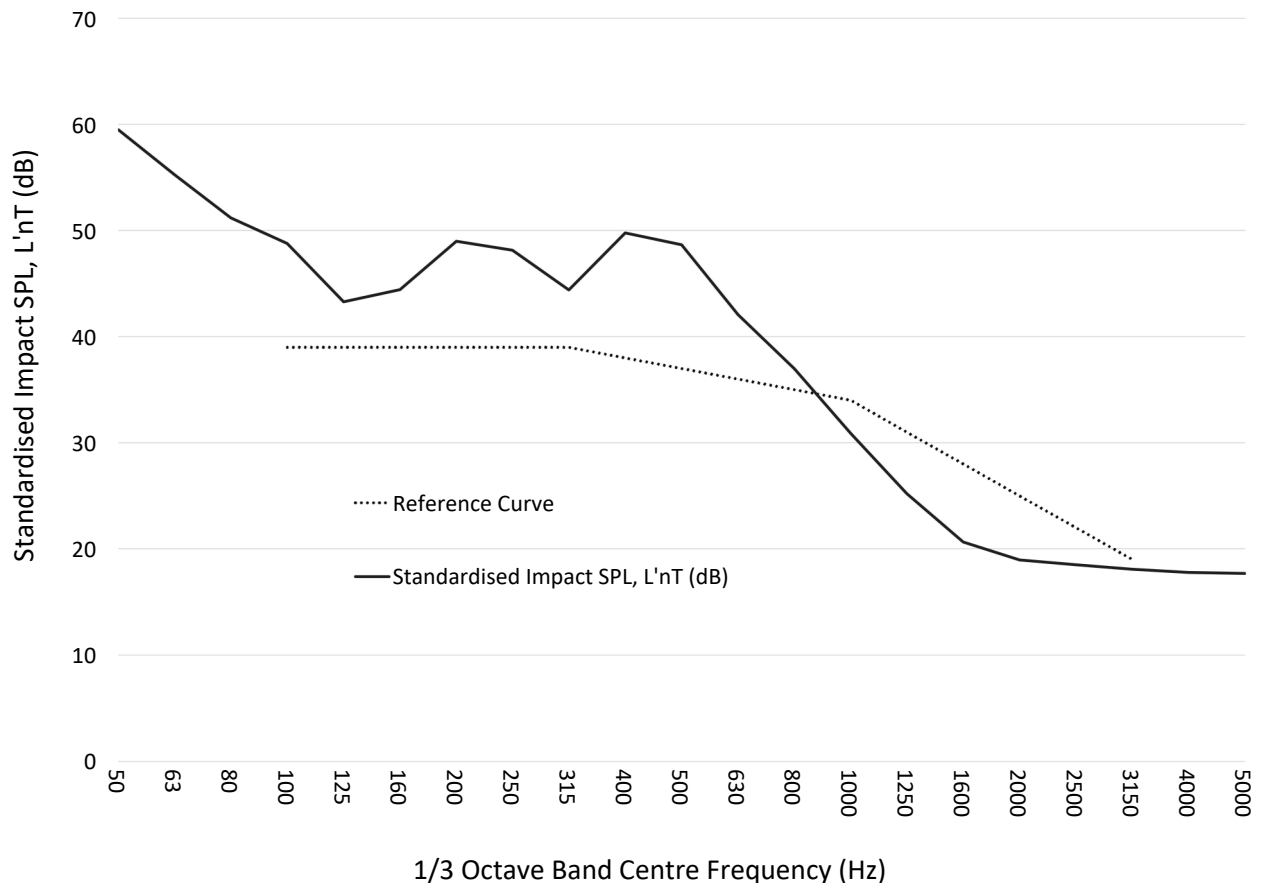
Sub-base & ceiling below: Reinforced concrete slab

Suspended ceiling cavity with plasterboard ceiling

Source Room: Living area on 12th floor level

Receiver Room: Living area on 11th floor level

Approx. receiver room vol: 57.24



1/3 Octave Band Centre Frequency (Hz)	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
L'nT [dB]	59.5	55.3	51.2	48.8	43.3	44.4	49.0	48.1	44.4	49.8	48.6	42.1	37.0	30.9	25.2	20.6	19.0	18.5	18.1	17.8	17.7

Acoustical Rating

Measured Weighted Standardised Sound Level Difference, L'nTw

42

Field Impact Isolation Class, FIIC

65

AAAC Star Rating

5

Reference/Guideline

ASISO717.2 - 2004

ASTME1007-14

AAAC Guideline

Testing Date : Friday, 2 August 2024

Reference No.: 3837

Testing Organisation: Contrix Pty Ltd

Tested By: Michael Fan Chiang
BE(Mech)., MAAS

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