

Contrix Pty Ltd

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Hurstville (By Appointment)

IMPACT NOISE TESTING OF HARD FLOOR COVERING HTT Flooring Pty Ltd

Contrix Pty Ltd was requested to perform impact noise tests on the selected hard floor coverings within the residential apartment in Hurstville NSW.

The aim of conducting this impact noise tests was to determine the acoustic rating of the selected hard floor covering (Duro Opulence 8mm Hybrid) 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 in the open living areas of the residential units in Hurstville on Friday, 7th February 2025. The receiver space is located directly below the noise source room and has the same floor layout.

Based on our test results and calculations, floor covering sample (Duro Opulence 8mm Hybrid) tested within the residential apartment in Hurstville achieves the acoustical ratings of:

- Measured Weighted Standardised Sound Level Different, L'_{nTw} 41
- Field Impact Insulation Class, FIIC 62
- AAAC Star Rating 5

A summary page of testing results can be found on page 2, followed by a detailed technical data sheet.

IMPACT NOISE INSULATION FIELD TEST REPORT SUMMARY


Testing Date:	Friday 7 th February 2025
Prepared For:	HTT Flooring Pty Ltd
Testing Location:	Residential Apartment in Hurstville NSW
Flooring System Tested:	Duro Opulence 8mm Hybrid
Separating partition system:	Reinforced concrete slab Suspended ceiling cavity Plasterboard ceiling
Source Room:	Living area of on the upper floor level
Receiver Room:	Living area of on the lower floor level (directly below)

Floor Covering Samples and Tested Acoustic Ratings					
Floor Finishes	Acoustic Underlay	Acoustic Rating			
		L' _{nTw}	FIC	AAAC Star Rating	Δ L' _{nTw}
Duro Opulence 8mm Hybrid	Built-in	41	62	5	15

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:		Report Date:	14 th February 2025
	Michael Fan Chiang BE (Mech)., MAAS Consultant		

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

HTT Flooring Pty Ltd

Testing Date: Friday, 7 February 2025

Test No.: N/A

Client/Owner: HTT Flooring Pty Ltd

Testing Location: Residential apartment in Hurstville NSW

Floor Finish: Duro Opulence 8mm Hybrid

Acoustic Underlay: Built-in

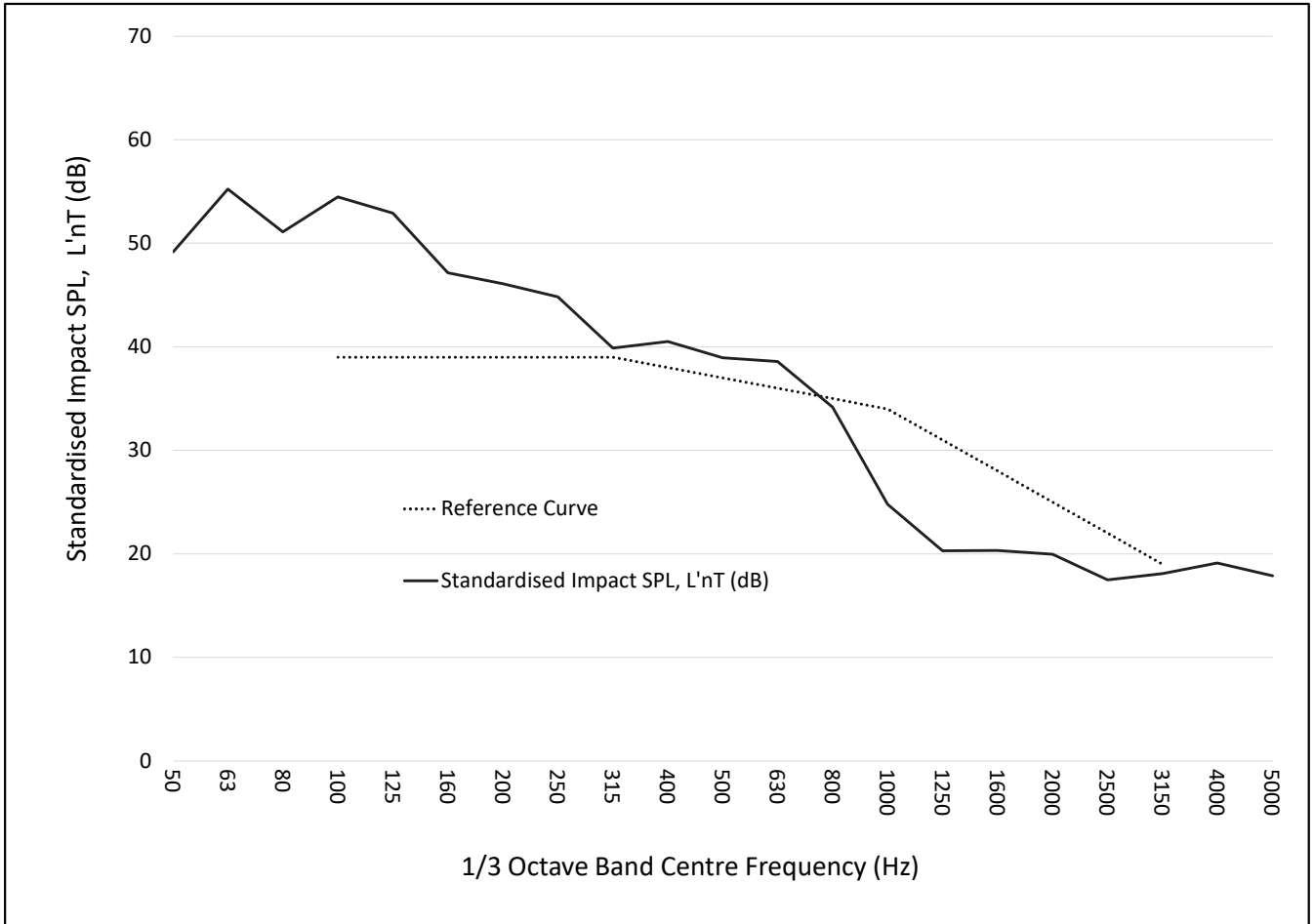
Sub-base & ceiling below: Reinforced concrete slab

Suspended ceiling cavity with plasterboard ceiling

Source Room: Living area on the upper floor level

Receiver Room: Living area on the lower floor level directly below

Approx. receiver room vol: 60.28



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]	49.1	55.2	51.1	54.5	52.9	47.1	46.1	44.8	39.9	40.5	38.9	38.6	34.2	24.8	20.3	20.3	20.0	17.5	18.1	19.1	17.9

Acoustical Rating

Reference/Guideline

Measured Weighted Standardised Sound Level Difference, L'nTw	41	AS ISO 717.2 - 2004
Field Impact Isolation Class, FIC	62	ASTME1007-14
AAAC Star Rating	5	AAAC Guideline

Testing Date :	Friday, 7 February 2025	Contrix Pty Ltd ABN: 95 632 593 625 E-mail: info@contrix.com.au Tel: +61 425 240 555 www.contrix.com.au/acoustics
Reference No.:	3875	
Testing Organisation:	Contrix Pty Ltd	
Tested By:	Michael Fan Chiang BE(Mech), MAAS	

Disclaimers:

- The information provided in this report relates to sound insulation of floor coverings & underlays only.
- Contrix Pty Ltd does not provide products or installation services of hard floor coverings/underlay, therefore, not responsible or liable for any product defects.
- This testing report is site-specific and only applies to the subject premise for the tested product as specified in this document.
- It is imperative to strictly adhere to the installation guidelines provided by the supplier or installation instructions. Contrix Pty Ltd bears no liability in the event of non-compliance with these instructions.
- 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.
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