

## Contrix Pty Ltd

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## IMPACT NOISE TESTING OF HARD FLOOR COVERING PREFERENCE FLOORS: Hybrid Flooring - Lifestyle 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 - Lifestyle 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 2<sup>nd</sup> 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 - Lifestyle 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, **FIC 64 ~ 65**
- AAAC Star Rating **5**

# IMPACT NOISE INSULATION FIELD TEST REPORT SUMMARY


|                                     |                                                                                                                                  |
|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| <b>Testing Date:</b>                | Friday 2 <sup>nd</sup> August 2024                                                                                               |
| <b>Prepared For:</b>                | Preference Floors                                                                                                                |
| <b>Testing Location:</b>            | Residential Apartment in Zetland NSW                                                                                             |
| <b>Flooring System Tested:</b>      | Hybrid Flooring - Lifestyle Collection 12mm                                                                                      |
| <b>Separating partition system:</b> | Approximately 200 mm reinforced concrete slab<br>Suspended ceiling cavity of 80 to 100 mm with 10mm or 13mm plasterboard ceiling |
| <b>Source Room:</b>                 | Open plan living/dining/kitchen area on level 12                                                                                 |
| <b>Receiver Room:</b>               | Open plan living/dining/kitchen area on level 11 (directly below)                                                                |

| Test Results |                                             |                          |                      |     |                  |          |
|--------------|---------------------------------------------|--------------------------|----------------------|-----|------------------|----------|
| Test #       | Floor covering                              | Underlay                 | Acoustic Performance |     |                  |          |
|              |                                             |                          | L' nTw               | FIC | AAAC Star Rating | Δ L' nTw |
| 01           | Hybrid Flooring - Lifestyle Collection 12mm | Built-in                 | 44                   | 64  | 5                | 14       |
| 02           | Hybrid Flooring - Lifestyle Collection 12mm | Regupol® Sonus Multi 3mm | 42                   | 65  | 5                | 16       |

|                          |                                                      |
|--------------------------|------------------------------------------------------|
| <b>Sound Source:</b>     | Tapping Machine TM004 S/N 59005                      |
| <b>Measuring Device:</b> | 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.

|                   |                                                                                                                                          |                     |                             |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------|---------------------|-----------------------------|
| <b>Tested By:</b> | Michael Fan Chiang<br>BE (Mech)., MAAS<br>Consultant  | <b>Report Date:</b> | 5 <sup>th</sup> August 2024 |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------|---------------------|-----------------------------|

**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

### Preference Floors: Hybrid Floor - Lifestyle Collection 12mm

Testing Date: Friday, 2 August 2024

Test No.: 01

Client/Owner: Preference Floors

Testing Location: Residential Apartment in Zetland NSW

Floor Finish: Hybrid Floor - Lifestyle Collection 12mm

Acoustic Underlay: Built-in with 2mm IXPE underlay

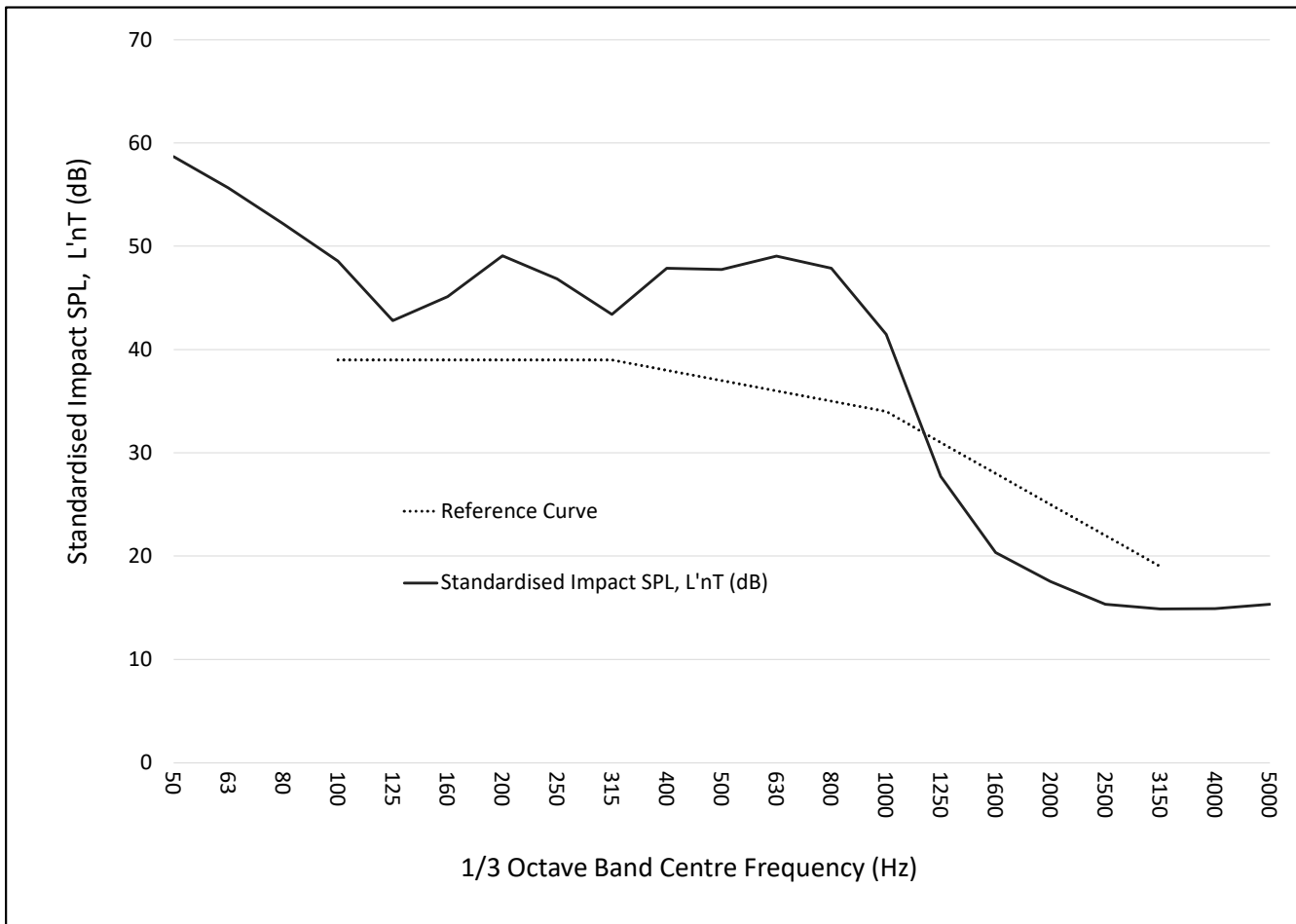
Sub-base & ceiling below: Reinforced concrete slab

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 | <b>44</b> | AS ISO 717.2 - 2004 |
| Field Impact Isolation Class, FIC                            | <b>64</b> | ASTME1007-14        |
| AAAC Star Rating                                             | <b>5</b>  | AAAC Guideline      |

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

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- The information provided in this report relates to sound insulation of floor coverings & underlays only.
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# Technical Data Sheet - Standardised Impact Sound Pressure Level

## Impact Sound Insulation Testing of Floorboards

### Preference Floors: Hybrid Floor - Lifestyle Collection 12mm

Testing Date: Friday, 2 August 2024

Test No.: 02

Client/Owner: Preference Floors

Testing Location: Residential Apartment in Zetland NSW

Floor Finish: Hybrid Floor - Lifestyle Collection 12mm

Acoustic Underlay: Regupol® Sonus Multi 3mm

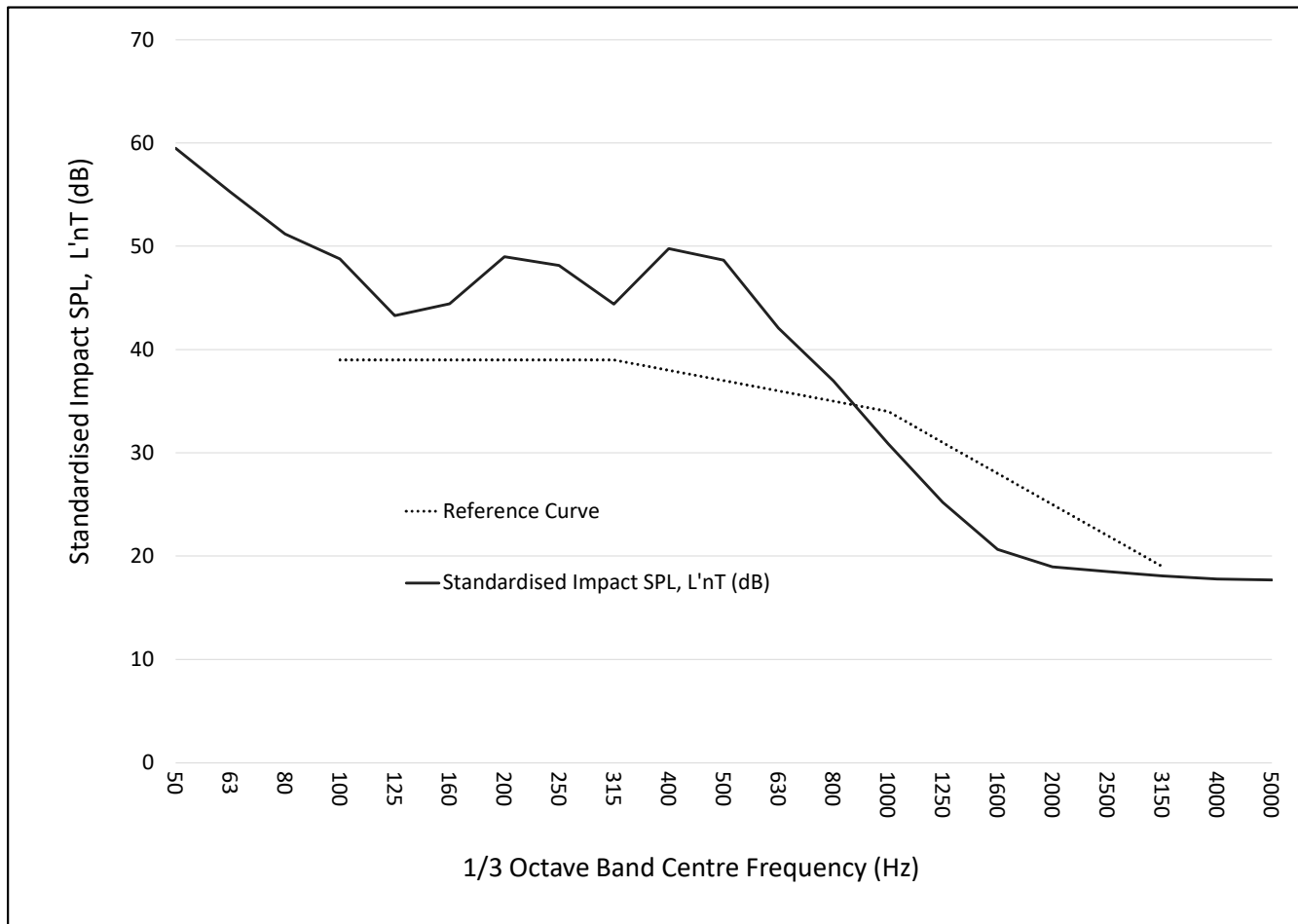
Sub-base & ceiling below: Reinforced concrete slab

Suspended ceiling cavity with plasterboard ceiling

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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

#### Reference/Guideline

Measured Weighted Standardised Sound Level Difference, L'nTw **42**

AS ISO 717.2 - 2004

Field Impact Isolation Class, FIC **65**

ASTME1007-14

AAAC Star Rating **5**

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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