

Product Summary

Part 1A : Australia Timber Design (Dimensions)

The following specification apply to Blackbutt, Spotted Gum, and Jarrah:

Width	194	mm
Length	1513	mm
Total Thickness	12	mm
Boards Per Box	6	planks
Box Size	1.761	sqm
Box Weight	18.6	kg

Note: RoyalStep 12mm Laminate in Australian Timber designs are narrower than Oak designs for a more authentic eucalyptus timber look to better showcase the natural look of Australian eucalyptus timber.

Part 1B : Oak Design (Dimensions)

The following specifications apply to European Oak designs:

Width	235	mm
Length	1513	mm
Total Thickness	12	mm
Boards Per Box	6	planks
Box Size	2.133	sqm
Box Weight	23.6	kg

Part 2 : General Data

Click Lock System	4 Side Click - Angle-to-Angle, Valinge
Profile	Laminated Timber Bevel Design

Installation Method	Floating Installation
Wear Resistance	EN33, AC5
Finish	<p>Australian Timber Designs Anti-Slip Textured Matte Surface</p> <p>Oak Designs 3D Embossed-in-Register - surface embossing texture matches the print layer for greater authenticity.</p>
Core Type	<ul style="list-style-type: none"> ◆ Advanced Moisture-Resistant Timber Core ◆ CARB-2 Air Quality Standard ◆ High Density (900 - 920KG per cubic metre)
Water Resistance	<p>Watertight surface & advanced moisture-resistant core:</p> <ul style="list-style-type: none"> ◆ 120+ hours protection from water spills ◆ 500+ hours from bubbling or delamination <p>Note : RoyalStep 12mm Laminate is manufactured with the most advanced and moisture-resistant HDF core and will not experience traditional issues such as bubbling or delamination.</p> <p>This does not mean it can be installed in wet areas or areas of high moisture e.g. sauna, bathrooms, or areas with risk of flooding or leakages. Extended exposure to water or moisture may still result in some dimensional change or expansion, resulting in appearance changes, not affecting usage or performance.</p>

Part 3 : Warranty

General Residential	25	Years
General Commercial	5	Years

Part 4: Wet Pendulum Slip Test (AS 4586-2013)

TEST REPORT

Client : Everfloor
 2A 87 Allingham Street
 Condell Park NSW 2200

Test Number : 25-004455
Issue Date : 3/11/2025
Print Date : 4/12/2025

**AS 4586-2013
 Appendix A**

**Slip Resistance Classification of new Pedestrian Surface Materials
 Wet Pendulum Test Method**

Date of Testing 03-11-2025
 Operator AWTA Test Operator 4
 Test Temperature (20±5degC) 21 °C
 Washed with pH neutral detergent and dried
 Test Direction Length
 Fixed/Unfixed Unfixed
 Slider No 96 Batch No 61

Length	1	2	3	4	5	SRV
British Pendulum number	40	39	38	39	38	39

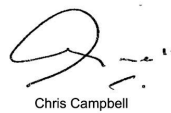
 Classification P3

Equipment: Cooper Pendulum Skid Tester Serial No: 1433-01 Calibrated 11/10/2023
 Slider prepared using P400 and 3µm lapping film.

These results apply only to the specimens tested and it is recommended that before selection of flooring or paving materials the effect of service conditions, including maintenance and wear on their slip resistance be checked.

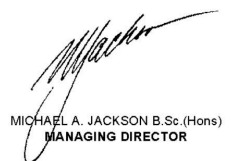


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Chris Campbell

APPROVED SIGNATORY



MICHAEL A. JACKSON B.Sc.(Hons)
 MANAGING DIRECTOR

Part 5: Fire Test (AS 4586-2013)

TEST REPORT

Client : Everfloor
 2A 87 Allingham Street
 Condell Park NSW 2200

Test Number : 24-001707
Issue Date : 30/05/2024
Print Date : 11/07/2024

AS ISO 9239.1-2003

Reaction to Fire Tests for Floorings. Determination of the Burning Behaviour using a Radiant Heat Source

Date of Sample Arrival	14-05-2024			
Date Tested	30-05-2024			
CHF Value	1	2	3	Mean
Length	≥11.0	-	-	- kW/m ²
Width	≥11.0	≥11.0	≥11.0	≥11.0 kW/m ²
Smoke Value	1	2	3	Mean
Length	5	-	-	- %.min
Width	9	1	3	4 %.min
Observation				
Blistering				Yes

Each specimen was clamped to a substrate of 6mm thick fibre reinforced cement board prior to testing.

HF30 not reported as flame out time occurred before 30 minutes.

The test results relate to the behaviour of the test specimens of a product under the particular conditions of the test, they are not intended to be sole criterion for assessing the potential fire hazard of the product in use.

Sample was conditioned in accordance with BSEN 13238:2010 at a temperature of 23±2°C and relative humidity of 50±5% for a minimum of 48 hours prior to testing.

Results in accordance with section 8.4 have not been included in the report. They are available upon request.

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Page 2 of 2

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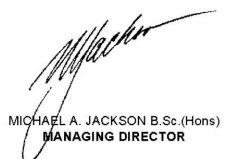


Accredited for compliance with ISO/IEC 17025 - Testing
 Accreditation Numbers: 983, 985, and 1356

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Fiona McDonald
 APPROVED SIGNATORY



MICHAEL A. JACKSON B.Sc.(Hons)
 MANAGING DIRECTOR

0204/11/06

Part 6A: Air Quality Testing (CARB ATCM)

Test Report

No.: CANIN25014195106

Date: Aug 07, 2025

Page 2 of 4

Test Result(s):

Test Part Description:

SN ID	Sample No.	SGS Sample ID	Description
SN1	003	CAN25-0141951-0001.C003	Grey solid board with a light brown wood grain surface

Remarks:

- (1) 1 mg/kg = 1 ppm = 0.0001%
- (2) MDL = Method Detection Limit
- (3) ND = Not Detected (< MDL)
- (4) “-“ = Not Regulated

Final Regulation Order – Airborne Toxic Control Measure to Reduce Formaldehyde Emissions from Composite Wood Product (CARB ATCM), title 17, California Code of Regulation, section 93120.2 (a) and US EPA 40 CFR Part 770.10, Toxic Substances Control Act (TSCA) Title VI – Formaldehyde Emission Test for Composite Wood Products

Test Method: With reference to ASTM D6007-14 and Standard Face and Back Configuration testing therein, analysis was performed by UV-Vis.

Test Item(s)	Limit	Unit(s)	MDL	003
Sample Conditioning / Parameters				
Average Temperature	-	°C	-	23.5
Average Relative Humidity	-	%	-	51.0
Range of Temperature	-	°C	-	24±3
Range of Relative Humidity	-	%	-	50±5
Sampling Time	-	h	-	168
Formaldehyde Background	-	ppm	-	<0.10
Sample Details and Apparatus				
Chamber Dimensions(Nominal)	-	m	-	1.6*0.8*0.8
Chamber Volume	-	m³	-	1.0
Chamber Load Ratio	-	m²/m³	-	0.6399
Chamber Q/A Ratio(±2%)	-	-	-	1.172
Sample Size	-	cm	-	32.3*33.0
Number of Samples	-	-	-	3
Number of Exposed Surfaces	-	-	-	6
Sampling Parameters of Emission Test				
Average Temperature	-	°C	-	24.8
Average Relative Humidity	-	%	-	48.3
Range of Temperature	-	°C	-	25±1
Range of Relative Humidity	-	%	-	50±4
Air-sampling Time	-	min	-	30
Sampling Time in Chamber	-	min	-	240
Air-sampling Rate	-	L/min	-	1.0
Formaldehyde Emission Results				
Formaldehyde Background	-	ppm	0.01	ND
Formaldehyde Emission	-	ppm	0.01	ND
Formaldehyde Emission (Corrected)	0.11	ppm	0.01	ND
Conclusion				Pass



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Part 6B: Air Quality Testing (CARB ATCM)

Test Report

No.: CANIN25014195106

Date: Aug 07, 2025

Page 3 of 4

Notes:

- (1) ppm = parts of formaldehyde per million parts air.
- (2) Formaldehyde Emission (Corrected) is Formaldehyde concentration corrected to 25°C and 50% Relative Humidity.
- (3) The scope of CARB ATCM / TSCA Title VI is/are applicable for composite wood, but not for other wood products.
- (4) Formaldehyde emission test is one of the conformity criteria under CARB ATCM / TSCA Title VI. Full conformity of a composite wood product happens provided that this composite wood fulfill all the requirement as stated in CARB ATCM title 17 section 93120 to 93120.12 / US EPA 40 CFR Part 770.10.

Reference Limit:


Maximum Permissible Limit according to CARB ATCM, Title 17, California Code of Regulation, Section 93120.2 (a):

Formaldehyde Emission Standards for Hardwood Plywood(HWPW), Particleboard(PB), and Medium Density Fiberboard(MDF)	
Type	Limits
HWPW	0.05 ppm
PB	0.09 ppm
MDF	0.11 ppm
Thin MDF	0.13 ppm

Maximum Permissible Limit according to TSCA Title VI, US EPA 40 CFR Part 770.10, Code of Federal Regulations:

Formaldehyde Emission Standards for Hardwood Plywood(HWPW), Particleboard(PB), Medium Density Fiberboard(MDF), and Laminated Product	
Type	Limits
HWPW	0.05 ppm
PB	0.09 ppm
MDF	0.11 ppm
Thin MDF	0.13 ppm
Laminated Product	0.05 ppm

Unless otherwise stated, the decision rule for conformity reporting is based on Binary Statement for Simple Acceptance Rule (w=0) stated in ILAC-G8:09/2019.



SGS-CSI Standards Technical Services Co., Ltd.
Guangzhou Branch

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Part 7: Acoustic Test (RoyalStep 12mm + 2MM EVERQUIET IXPE)

System Tested	L'_{nTw} ³	FIIC ^{4,5}	AAAC ⁶
Bare Concrete Floor (ECFS only) - for comparison purposes only	55	49	3
RoyalStep 12mm + 2mm Everquiet IXPE Underlay	42	65	5

FIELD MEASUREMENTS OF IMPACT SOUND INSULATION OF FLOORS



Date of Test : Tuesday, 29 March 2022
 Project No. : 3523
 Testing Company : Koikas Acoustics
 Checked by : Nick Koikas
 Place of Test : Residential apartments in Sydney, NSW
 Client : Everfloor / EverQuiet
 Client Address : -

Description of Floor System	Thickness (mm)	Density (S)
12 mm laminate flooring	12	--
2 mm EverQuiet IXPE underlay	2	--
Concrete slab	180-200	--
Suspended ceiling	80-150	--

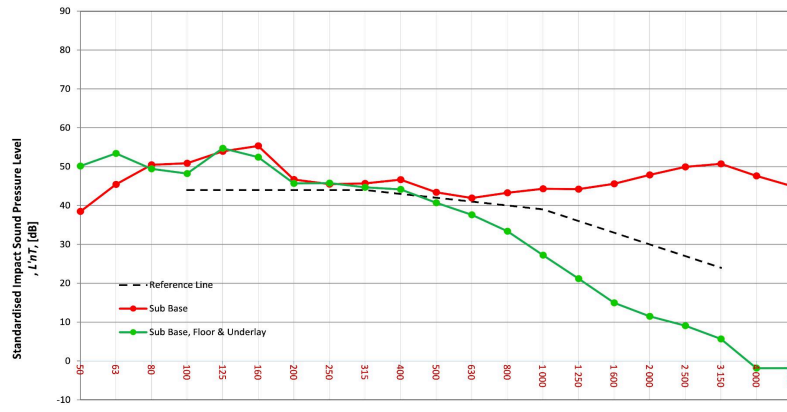
Room Floor Dimensions	Width	Length	Area
	5 m	8 m	40.00 m ²

Sample Dimensions	Width	Length	Area
	1 m	1 m	1 m ²

Receiver Rm	Location	Width	Length	Area	Height	Volume
Reception/Dining/Living directly t		5	8	40.00	2.7	108.00

Room Surfaces		
Walls	Floor	Ceiling
Plasterboard	Timber	Plasterboard

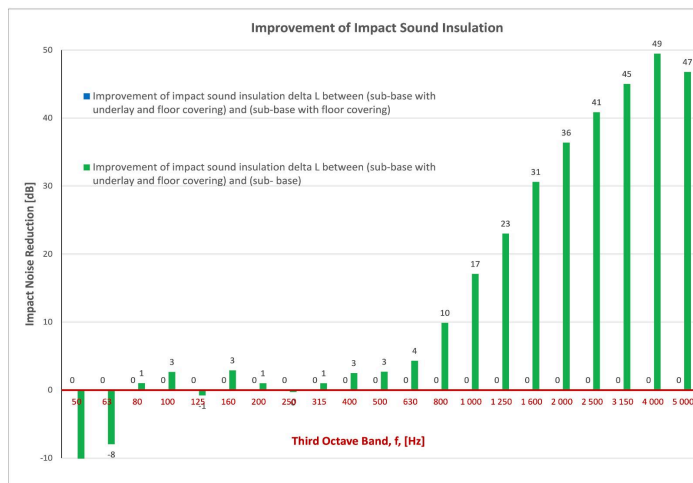
Frequency f Hz	L'nT (one-third octave) dB		
	Sub Base	Sub Base Floor	Sub Base Floor Underlay
50	38.5	N/A	50.2
63	45.4	N/A	53.4
80	50.4	N/A	49.4
100	50.9	N/A	48.2
125	53.9	N/A	54.7
160	55.3	N/A	52.4
200	46.7	N/A	45.7
250	45.5	N/A	45.8
315	45.7	N/A	44.7
400	46.6	N/A	44.1
500	43.4	N/A	40.7
630	41.9	N/A	37.6
800	43.3	N/A	33.4
1000	44.3	N/A	27.2
1250	44.2	N/A	21.2
1600	45.6	N/A	15.0
2000	47.9	N/A	11.5
2500	49.9	N/A	9.1
3150	50.7	N/A	5.7
4000	47.6	N/A	-1.9
5000	44.9	N/A	-1.8



Sub Base	
L'nT,w	55 AS ISO 717.2 - 2004
CI	-9 AS ISO 717.2 - 2004
CI(50-2500)	-9 AS ISO 717.2 - 2004
CI(63-2000)	-9 AS ISO 717.2 - 2004
AAAC★	3 Star AAAC Guideline
FIIC	49 ASTM E1007-14

Sub Base & Floor	
L'nT,w	N/A AS ISO 717.2 - 2004
CI	N/A AS ISO 717.2 - 2004
CI(50-2500)	N/A AS ISO 717.2 - 2004
CI(63-2000)	N/A AS ISO 717.2 - 2004
AAAC★	N/A AAAC Guideline
FIIC	N/A ASTM E1007-14

Sub Base, Floor & Underlay	
L'nT,w	42 AS ISO 717.2 - 2004
CI	1 AS ISO 717.2 - 2004
CI(50-2500)	3 AS ISO 717.2 - 2004
CI(63-2000)	3 AS ISO 717.2 - 2004
AAAC★	5 Star AAAC Guideline
FIIC	65 ASTM E1007-14



Definitions of Noise Metrics

FIIC:
 Field Impact Insulation Class is a single-number rating of how well a floor system attenuates impact type sounds, such as footsteps. Calculated from third-octave band normalised impact sound pressure level data and referenced to 10 m² as described in ASTM E989. The higher the single-number rating, the better its impact insulation performance.

L'nT,w:
 The Weighted Standardised Impact Sound Pressure Level when measured in situ referenced to a reverberation time (RT60) of 0.5 seconds. Used by the AAAC to determine their respective Star Rating.

CI:
 Spectrum adaption term is a low frequency correction factor. Typically for massive floors such as concrete, the values are about zero while for timber joist floors CI is positive because of the low resonant frequencies. Considers frequency range between 100- and 2500 Hz.

CI(50-2500):
 Same as above, but for the frequency range 50 - 2500 Hz.

CI(125-2000):
 Same as above, but for the frequency range 125 - 2000 Hz.

AAAC Star R.	2	3	4	5	6
L'nT,w	65	55	50	45	40
FIIC	45	55	60	65	70
Comments	Below BCA 62	Clearly Audible	Audible	Barely Inaudible	Normally Inaudible

Acoustic test results provided are only indicative of acoustic performance and are site specific, so outcomes may vary from building to building. Royal Floors provides this information for guidance and indicative purposes only and does not guarantee any specific acoustic outcome. Indicative testing has been completed by acoustic engineers according to AS/NZS ISO 140.7:2006 and the rating has been determined as per AS ISO 717.2-2004.

Please visit royalfloors.com.au for the most up-to-date version of Warranty, Installation, and care and maintenance guidelines. All technical data and testing are based on random sampling and are for indicative purposes only. Version: April 2026

Part 7: Acoustic Test (RoyalStep 12mm + 3MM EVERQUIET IXPE)

System Tested	L'_{nTw} ³	FIIC ^{4, 5}	AAAC ⁶
Bare Concrete Floor (ECFS only) - for comparison purposes only	55	49	3
RoyalStep 12mm + 3mm Everquiet IXPE Underlay	42	65	5

FIELD MEASUREMENTS OF IMPACT SOUND INSULATION OF FLOORS



Date of Test : Tuesday, 29 March 2022
 Project No. : 3523
 Testing Company : Koikas Acoustics
 Checked by : Nick Koikas
 Place of Test: Residential apartments in Sydney, NSW
 Client : Everfloor / EverQuiet
 Client Address : -

Description of Floor System	Name	Thickness (mm)	Density (S)
12 mm laminate flooring		12	--
3 mm EverQuiet IXPE underlay		3	--
Concrete slab		180-200	--
Suspended ceiling		80-150	--

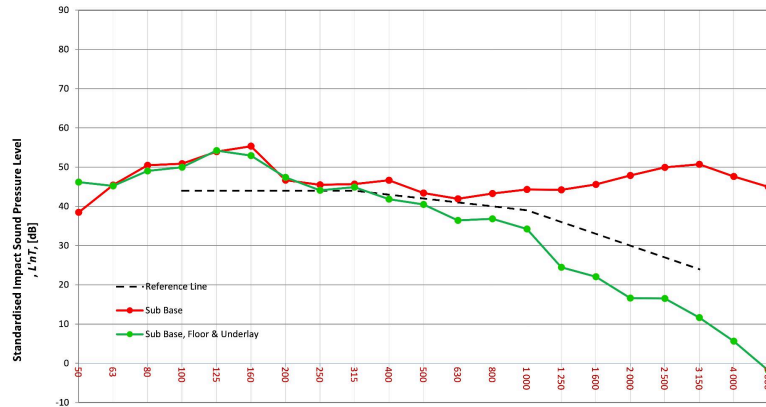
Room Width : 5 m
 Floor Length : 8 m
 Dimensions Area : 40.00 m²

Sample Width : 1 m
 Dimensions Length : 1 m
 Area : 1 m²

Receiver Rm	Location	Width	Length	Area	Height	Volume
5	en/Dining/Living directly t	5	8	40.00	2.7	108.00

Room Surfaces		
Walls	Floor	Ceiling
Plasterboard	Timber	Plasterboard

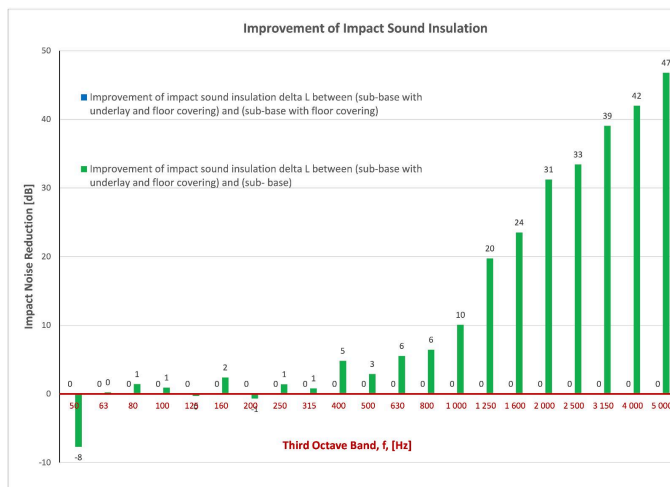
Frequency f Hz	L'nT (one-third octave) dB		
	Sub Base	Sub Base Floor	Sub Base Floor Underlay
50	38.5	N/A	46.2
63	45.4	N/A	45.2
80	50.4	N/A	49.0
100	50.9	N/A	50.0
125	53.9	N/A	54.2
160	55.3	N/A	52.9
200	46.7	N/A	47.4
250	45.5	N/A	44.1
315	45.7	N/A	44.9
400	46.6	N/A	41.8
500	43.4	N/A	40.5
630	41.9	N/A	36.4
800	43.3	N/A	36.8
1000	44.3	N/A	34.2
1250	44.2	N/A	24.5
1600	45.6	N/A	22.1
2000	47.9	N/A	16.6
2500	49.9	N/A	16.5
3150	50.7	N/A	11.7
4000	47.6	N/A	5.6
5000	44.9	N/A	-1.8



Sub Base	
L'nT,w	55
CI	-9
CI(50-2500)	-9
CI(63-2000)	-9
AAAC★	3 Star
FIIC	49

Sub Base & Floor	
L'nT,w	N/A
CI	N/A
CI(50-2500)	N/A
CI(63-2000)	N/A
AAAC★	N/A
FIIC	N/A

Sub Base, Floor & Underlay	
L'nT,w	42
CI	2
CI(50-2500)	2
CI(63-2000)	2
AAAC★	5 Star
FIIC	65



Definitions of Noise Metrics

FIIC:
 Field Impact Insulation Class is a single-number rating of how well a floor system attenuates impact type sounds, such as footsteps. Calculated from third-octave band normalised impact sound pressure level data and referenced to 10 m² as described in ASTM E989. The higher the single-number rating, the better its impact insulation performance.

L'nT,w:
 The Weighted Standardised Impact Sound Pressure Level when measured in situ referenced to a reverberation time (RT60) of 0.5 seconds. Used by the AAAC to determine their respective Star Rating.

CI:
 Spectrum adaption term is a low frequency correction factor. Typically for massive floors such as concrete, the values are about zero while for timber/joint floors CI is positive because of the low resonant frequencies. Considers frequency range between 100- and 2500 Hz.

CI(50-2500):
 Same as above, but for the frequency range 50 -2500 Hz.

CI(125-2000):
 Same as above, but for the frequency range 125 -2000 Hz.

AAAC Star R.	2	3	4	5	6
L'nT,w	65	55	50	45	40
FIIC	45	55	60	65	70
Comments	Below BCA 62	Clearly Audible	Audible	Barely Inaudible	Normally Inaudible

Acoustic test results provided are only indicative of acoustic performance and are site specific, so outcomes may vary from building to building. Royal Floors provides this information for guidance and indicative purposes only and does not guarantee any specific acoustic outcome. Indicative testing has been completed by acoustic engineers according to AS/NZS ISO 140.7:2006 and the rating has been determined as per AS ISO 717.2-2004.

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Part 7: Acoustic Test (RoyalStep 12mm + EQ312 RUBBER UNDERLAY)

System Tested	L'_{nTw} ³	FIIC ^{4, 5}	AAAC ⁶
Bare Concrete Floor (ECFS only) - for comparison purposes only	55	49	3
RoyalStep 12mm + EQ312 Rubber Underlay	44	62	5

FIELD MEASUREMENTS OF IMPACT SOUND INSULATION OF FLOORS



Date of Test : Tuesday, 29 March 2022
 Project No. : 3523
 Testing Company : Koikas Acoustics
 Checked by : Nick Koikas
 Place of Test: Residential apartments in Sydney, NSW
 Client : Everfloor / EverQuiet
 Client Address : -

Description of Floor System	Name	Thickness (mm)	Density (S)
12 mm laminate flooring		12	--
3 mm EverQuiet Rubber EQ312 underlay		3	--
Concrete slab		180-200	--
Suspended ceiling		80-150	--

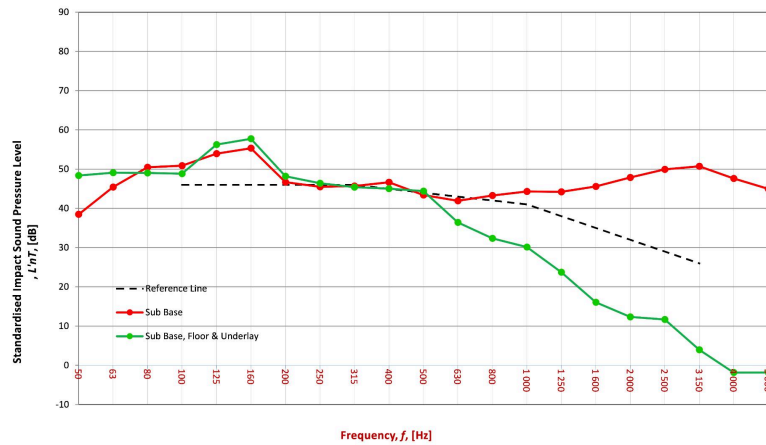
Room Width : 5 m
 Floor Length : 8 m
 Dimensions Area : 40.00 m²

Sample Width : 1 m
 Dimensions Length : 1 m
 Area : 1 m²

Receiver Rm	Location	Width	Length	Area	Height	Volume
5	Bedroom/Dining/Living directly t	5	8	40.00	2.7	108.00

Room Surfaces		
Walls	Floor	Ceiling
Plasterboard	Timber	Plasterboard

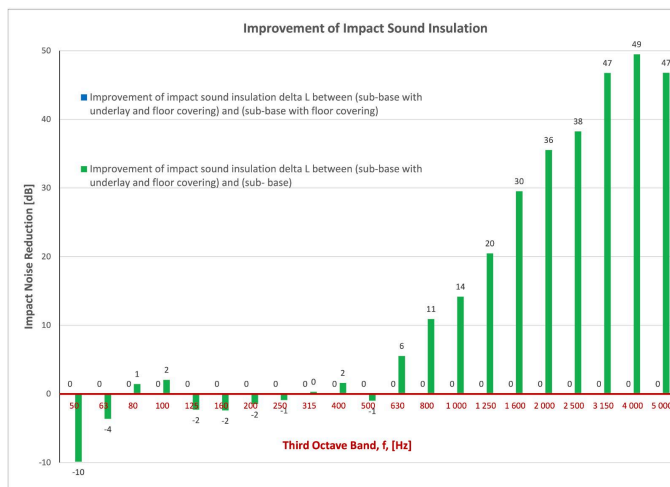
Frequency f Hz	L'nT (one-third octave) dB		
	Sub Base	Sub Base Floor	Sub Base Floor Underlay
50	38.5	N/A	48.4
63	45.4	N/A	49.1
80	50.4	N/A	49.0
100	50.9	N/A	48.8
125	53.9	N/A	56.2
160	55.3	N/A	57.7
200	46.7	N/A	48.2
250	45.5	N/A	46.4
315	45.7	N/A	45.4
400	46.6	N/A	45.0
500	43.4	N/A	44.4
630	41.9	N/A	36.4
800	43.3	N/A	32.3
1000	44.3	N/A	30.1
1250	44.2	N/A	23.7
1600	45.6	N/A	16.1
2000	47.9	N/A	12.3
2500	49.9	N/A	11.7
3150	50.7	N/A	3.9
4000	47.6	N/A	-1.9
5000	44.9	N/A	-1.8



Sub Base	
L'nT,w	55
CI	-9
CI(50-2500)	-9
CI(63-2000)	-9
AAAC★	3 Star
FIIC	49

Sub Base & Floor	
L'nT,w	N/A
CI	N/A
CI(50-2500)	N/A
CI(63-2000)	N/A
AAAC★	N/A
FIIC	N/A

Sub Base, Floor & Underlay	
L'nT,w	44
CI	2
CI(50-2500)	3
CI(63-2000)	3
AAAC★	5 Star
FIIC	62



Definitions of Noise Metrics

FIIC:
 Field Impact Insulation Class is a single-number rating of how well a floor system attenuates impact type sounds, such as footsteps. Calculated from third-octave band normalised impact sound pressure level data and referenced to 10 m² as described in ASTM E989. The higher the single-number rating, the better its impact insulation performance.

L'nT,w:
 The Weighted Standardised Impact Sound Pressure Level when measured in situ referenced to a reverberation time (RT60) of 0.5 seconds. Used by the AAAC to determine their respective Star Rating.

CI:
 Spectrum adaption term is a low frequency correction factor. Typically for massive floors such as concrete, the values are about zero while for timber joint floors CI is positive because of the low resonant frequencies. Considers frequency range between 100- and 2500 Hz.

CI(50-2500):
 Same as above, but for the frequency range 50 -2500 Hz.

CI(125-2000):
 Same as above, but for the frequency range 125 -2000 Hz.

AAAC Star R.	2	3	4	5	6
L'nT,w	65	55	50	45	40
FIIC	45	55	60	65	70
Comments	Below BCA 62	Clearly Audible	Audible	Barely Inaudible	Normally Inaudible

Acoustic test results provided are only indicative of acoustic performance and are site specific, so outcomes may vary from building to building. Royal Floors provides this information for guidance and indicative purposes only and does not guarantee any specific acoustic outcome. Indicative testing has been completed by acoustic engineers according to AS/NZS ISO 140.7:2006 and the rating has been determined as per AS ISO 717.2-2004.

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Part 7: Acoustic Test (RoyalStep 12mm + EQ512 Rubber Underlay)

System Tested	L'_{nTw} ³	FIIC ^{4, 5}	AAAC ⁶
Bare Concrete Floor (ECFS only) - for comparison purposes only	55	49	3
RoyalStep 12mm+ EQ512 Rubber Underlay	44	62	5

FIELD MEASUREMENTS OF IMPACT SOUND INSULATION OF FLOORS



Date of Test : Tuesday, 29 March 2022
 Project No. : 3523
 Testing Company : Koikas Acoustics
 Checked by : Nick Koikas
 Place of Test: Residential apartments in Sydney, NSW
 Client : Everfloor / EverQuiet
 Client Address : -

Description of Floor System	Name	Thickness (mm)	Density (S)
12 mm laminate flooring		12	--
5 mm EverQuiet Rubber EQ512 underlay		5	--
Concrete slab		180-200	--
Suspended ceiling		80-150	--

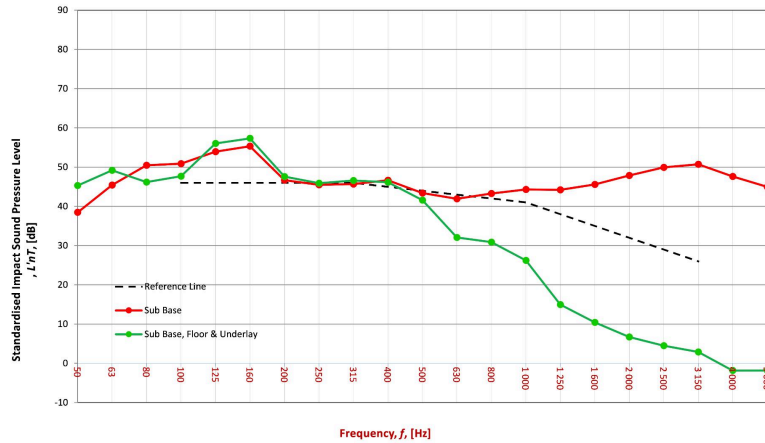
Room Width : 5 m
 Floor Length : 8 m
 Dimensions Area : 40.00 m²

Sample Width : 1 m
 Dimensions Length : 1 m
 Area : 1 m²

Receiver Rm	Location	Width	Length	Area	Height	Volume
5	Bedroom/Dining/Living directly	5	8	40.00	2.7	108.00

Room Surfaces		
Walls	Floor	Ceiling
Plasterboard	Timber	Plasterboard

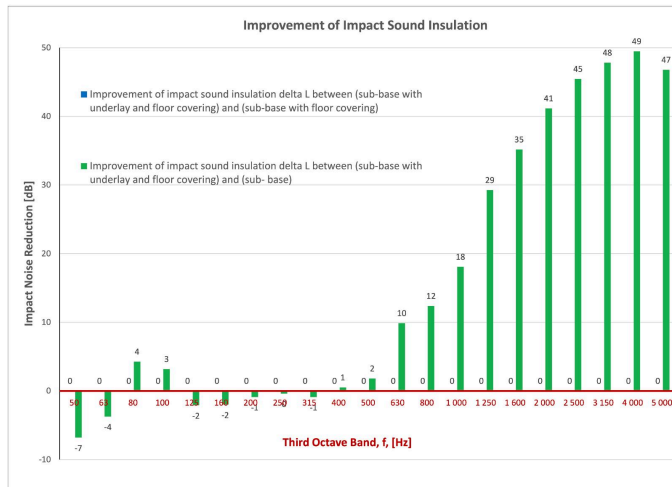
Frequency f Hz	L'nT (one-third octave) dB		
	Sub Base	Sub Base Floor	Sub Base Floor Underlay
50	38.5	N/A	45.3
63	45.4	N/A	49.2
80	50.4	N/A	46.2
100	50.9	N/A	47.7
125	53.9	N/A	56.0
160	55.3	N/A	57.3
200	46.7	N/A	47.6
250	45.5	N/A	45.9
315	45.7	N/A	46.6
400	46.6	N/A	46.1
500	43.4	N/A	41.6
630	41.9	N/A	32.1
800	43.3	N/A	30.9
1000	44.3	N/A	26.2
1250	44.2	N/A	15.0
1600	45.6	N/A	10.4
2000	47.9	N/A	6.7
2500	49.9	N/A	4.5
3150	50.7	N/A	2.9
4000	47.6	N/A	-1.9
5000	44.9	N/A	-1.8



Sub Base		
L'nT,w	55	AS ISO 717.2 - 2004
CI	-9	AS ISO 717.2 - 2004
CI(50-2500)	-9	AS ISO 717.2 - 2004
CI(63-2000)	-9	AS ISO 717.2 - 2004
AAAC★	3 Star	AAAC Guideline
FIIC	49	ASTM E1007-14

Sub Base & Floor		
L'nT,w	N/A	AS ISO 717.2 - 2004
CI	N/A	AS ISO 717.2 - 2004
CI(50-2500)	N/A	AS ISO 717.2 - 2004
CI(63-2000)	N/A	AS ISO 717.2 - 2004
AAAC★	N/A	AAAC Guideline
FIIC	N/A	ASTM E1007-14

Sub Base, Floor & Underlay		
L'nT,w	44	AS ISO 717.2 - 2004
CI	2	AS ISO 717.2 - 2004
CI(50-2500)	2	AS ISO 717.2 - 2004
CI(63-2000)	2	AS ISO 717.2 - 2004
AAAC★	5 Star	AAAC Guideline
FIIC	62	ASTM E1007-14



Definitions of Noise Metrics

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L'nT,w:
 The Weighted Standardised Impact Sound Pressure Level when measured in situ referenced to a reverberation time (RT60) of 0.5 seconds. Used by the AAAC to determine their respective Star Rating.

CI:
 Spectrum adaption term is a low frequency correction factor. Typically for massive floors such as concrete, the values are about zero while for timber joint floors CI is positive because of the low resonant frequencies. Considers frequency range between 100- and 2500 Hz.

CI(50-2500):
 Same as above, but for the frequency range 50 -2500 Hz.

CI(125-2000):
 Same as above, but for the frequency range 125 -2000 Hz.

AAAC Star R.	2	3	4	5	6
L'nT,w	65	55	50	45	40
FIIC	45	55	60	65	70
Comments	Below BCA 62	Clearly Audible	Audible	Barely Inaudible	Normally Inaudible

Acoustic test results provided are only indicative of acoustic performance and are site specific, so outcomes may vary from building to building. Royal Floors provides this information for guidance and indicative purposes only and does not guarantee any specific acoustic outcome. Indicative testing has been completed by acoustic engineers according to AS/NZS ISO 140.7:2006 and the rating has been determined as per AS ISO 717.2-2004.

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Part 7: Acoustic Test (RoyalStep 12mm + EQ515 Rubber Underlay)

System Tested	L'_{nTw} ³	FIIC ^{4, 5}	AAAC ⁶
Bare Concrete Floor (ECFS only) - for comparison purposes only	55	49	3
RoyalStep 12mm + EQ515 Rubber Underlay	43	63	5

FIELD MEASUREMENTS OF IMPACT SOUND INSULATION OF FLOORS



Date of Test : Tuesday, 29 March 2022
 Project No. : 3523
 Testing Company : Koikas Acoustics
 Checked by : Nick Koikas
 Place of Test: Residential apartments in Sydney, NSW
 Client : Everfloor / EverQuiet
 Client Address : -

Description	Name	Thickness (mm)	Density (S)
12 mm laminate flooring		12	--
5 mm EverQuiet Rubber EQ515 underlay		5	--
Concrete slab		180-200	--
Suspended ceiling		80-150	--

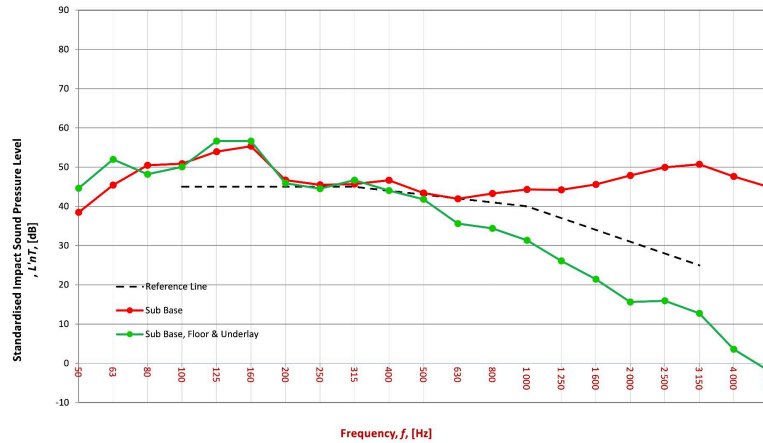
Room Width : 5 m
 Floor Length : 8 m
 Dimensions Area : 40.00 m²

Sample Width : 1 m
 Dimensions Length : 1 m
 Area : 1 m²

Receiver Rm	Location	Width	Length	Area	Height	Volume
5	en/Dining/Living directly t	5	8	40.00	2.7	108.00

Room Surfaces		
Walls	Floor	Ceiling
Plasterboard	Timber	Plasterboard

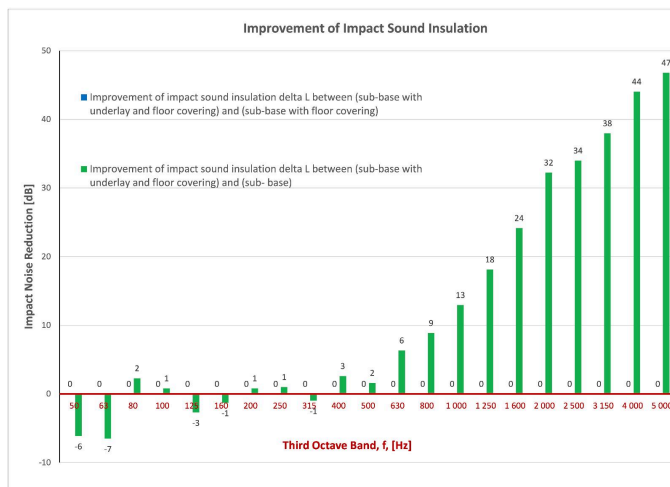
Frequency f Hz	L'nT (one-third octave) dB		
	Sub Base	Sub Base Floor	Sub Base Floor Underlay
50	38.5	N/A	44.6
63	45.4	N/A	52.0
80	50.4	N/A	48.2
100	50.9	N/A	50.1
125	53.9	N/A	56.6
160	55.3	N/A	56.6
200	46.7	N/A	45.9
250	45.5	N/A	44.5
315	45.7	N/A	46.7
400	46.6	N/A	44.0
500	43.4	N/A	41.8
630	41.9	N/A	34.4
800	43.3	N/A	34.4
1000	44.3	N/A	31.3
1250	44.2	N/A	26.1
1600	45.6	N/A	21.4
2000	47.9	N/A	15.6
2500	49.9	N/A	15.9
3150	50.7	N/A	12.7
4000	47.6	N/A	3.6
5000	44.9	N/A	-1.8



Sub Base		
L'nT,w	55	AS ISO 717.2 - 2004
CI	-9	AS ISO 717.2 - 2004
CI(50-2500)	-9	AS ISO 717.2 - 2004
CI(63-2000)	-9	AS ISO 717.2 - 2004
AAAC★	3 Star	AAAC Guideline
FIIC	49	ASTM E1007-14

Sub Base & Floor		
L'nT,w	N/A	AS ISO 717.2 - 2004
CI	N/A	AS ISO 717.2 - 2004
CI(50-2500)	N/A	AS ISO 717.2 - 2004
CI(63-2000)	N/A	AS ISO 717.2 - 2004
AAAC★	N/A	AAAC Guideline
FIIC	N/A	ASTM E1007-14

Sub Base, Floor & Underlay		
L'nT,w	43	AS ISO 717.2 - 2004
CI	43	AS ISO 717.2 - 2004
CI(50-2500)	4	AS ISO 717.2 - 2004
CI(63-2000)	3	AS ISO 717.2 - 2004
AAAC★	5 Star	AAAC Guideline
FIIC	63	ASTM E1007-14



Definitions of Noise Metrics

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L'nT,w:
 The Weighted Standardised Impact Sound Pressure Level when measured in situ referenced to a reverberation time (RT60) of 0.5 seconds. Used by the AAAC to determine their respective Star Rating.

CI:
 Spectrum adaption term is a low frequency correction factor. Typically for massive floors such as concrete, the values are about zero while for timber/joint floors CI is positive because of the low resonant frequencies. Considers frequency range between 100- and 2500 Hz.

CI(50-2500):
 Same as above, but for the frequency range 50 -2500 Hz.

CI(125-2000):
 Same as above, but for the frequency range 125 -2000 Hz.

AAAC Star R.	2	3	4	5	6
L'nT,w	65	55	50	45	40
FIIC	45	55	60	65	70
Comments	Below BCA 62	Clearly Audible	Audible	Barely Inaudible	Normally Inaudible

Acoustic test results provided are only indicative of acoustic performance and are site specific, so outcomes may vary from building to building. Royal Floors provides this information for guidance and indicative purposes only and does not guarantee any specific acoustic outcome. Indicative testing has been completed by acoustic engineers according to AS/NZS ISO 140.7:2006 and the rating has been determined as per AS ISO 717.2-2004.

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Part 7: Acoustic Test (RoyalStep 12mm + EQ1012 Rubber Underlay)

System Tested	L'_{nTw} ³	FIIC ^{4, 5}	AAAC ⁶
Bare Concrete Floor (ECFS only) - for comparison purposes only	55	49	3
RoyalStep 12mm + EQ1012 Rubber Underlay	44	62	5

FIELD MEASUREMENTS OF IMPACT SOUND INSULATION OF FLOORS



Date of Test : Tuesday, 29 March 2022
 Project No. : 3523
 Testing Company : Koikas Acoustics
 Checked by : Nick Koikas
 Place of Test: Residential apartments in Sydney, NSW
 Client : Everfloor / EverQuiet
 Client Address : -

Description	Name	Thickness (mm)	Density (S)
12 mm laminate flooring		12	--
10 mm EverQuiet Rubber EQ1012 underlay		10	--
Concrete slab		180-200	--
Suspended ceiling		80-150	--

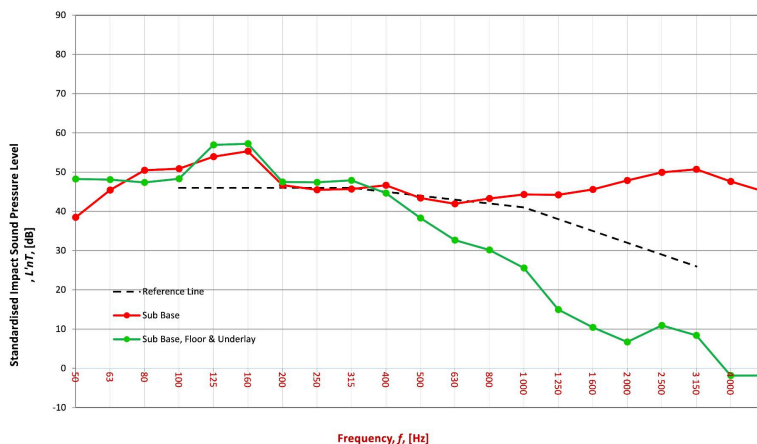
Room Width : 5 m
 Floor Length : 8 m
 Dimensions Area : 40.00 m²

Sample Width : 1 m
 Dimensions Length : 1 m
 Area : 1 m²

Receiver Rm	Location	Width	Length	Area	Height	Volume
5	en/Dining/Living directly t	5	8	40.00	2.7	108.00

Room Surfaces		
Walls	Floor	Ceiling
Plasterboard	Timber	Plasterboard

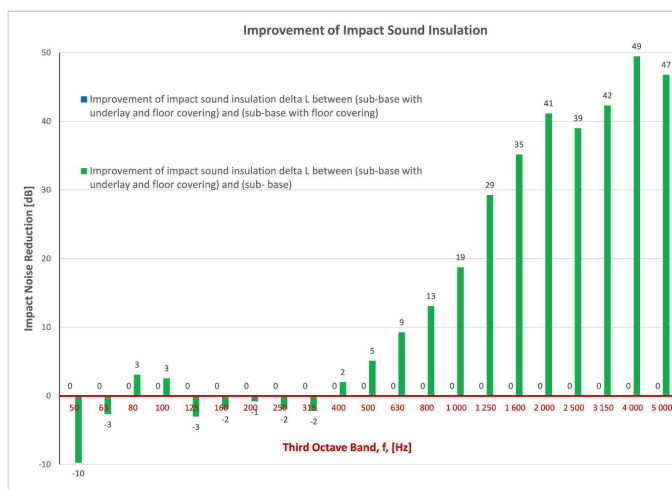
Frequency f Hz	L'nT (one-third octave) dB		
	Sub Base	Sub Base Floor	Sub Base Floor Underlay
50	38.5	N/A	48.2
63	45.4	N/A	48.1
80	50.4	N/A	47.3
100	50.9	N/A	48.3
125	53.9	N/A	56.9
160	55.3	N/A	57.2
200	46.7	N/A	47.5
250	45.5	N/A	47.4
315	45.7	N/A	47.9
400	46.6	N/A	44.6
500	43.4	N/A	38.3
630	41.9	N/A	32.7
800	43.3	N/A	30.2
1000	44.3	N/A	25.6
1250	44.2	N/A	15.0
1600	45.6	N/A	10.4
2000	47.9	N/A	6.7
2500	49.9	N/A	10.9
3150	50.7	N/A	8.4
4000	47.6	N/A	-1.9
5000	44.9	N/A	-1.8



Sub Base		
L'nT,w	55	AS ISO 717.2 - 2004
CI	-9	AS ISO 717.2 - 2004
CI(50-2500)	-9	AS ISO 717.2 - 2004
CI(63-2000)	-9	AS ISO 717.2 - 2004
AAAC★	3 Star	AAAC Guideline
FIIC	49	ASTM E1007-14

Sub Base & Floor		
L'nT,w	N/A	AS ISO 717.2 - 2004
CI	N/A	AS ISO 717.2 - 2004
CI(50-2500)	N/A	AS ISO 717.2 - 2004
CI(63-2000)	N/A	AS ISO 717.2 - 2004
AAAC★	N/A	AAAC Guideline
FIIC	N/A	ASTM E1007-14

Sub Base, Floor & Underlay		
L'nT,w	44	AS ISO 717.2 - 2004
CI	2	AS ISO 717.2 - 2004
CI(50-2500)	3	AS ISO 717.2 - 2004
CI(63-2000)	3	AS ISO 717.2 - 2004
AAAC★	5 Star	AAAC Guideline
FIIC	62	ASTM E1007-14



Definitions of Noise Metrics

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 Field Impact Insulation Class is a single-number rating of how well a floor system attenuates impact type sounds, such as footsteps. Calculated from third-octave band normalised impact sound pressure level data and referenced to 10 m² as described in ASTM E989. The higher the single-number rating, the better its impact insulation performance.

L'nT,w:
 The Weighted Standardised Impact Sound Pressure Level when measured in situ referenced to a reverberation time (RT60) of 0.5 seconds. Used by the AAAC to determine their respective Star Rating.

CI:
 Spectrum adaption term is a low frequency correction factor. Typically for massive floors such as concrete, the values are about zero while for timber joint floors CI is positive because of the low resonant frequencies. Considers frequency range between 100- and 2500 Hz.

CI(50-2500):
 Same as above, but for the frequency range 50 -2500 Hz.

CI(125-2000):
 Same as above, but for the frequency range 125 -2000 Hz.

AAAC Star R.	2	3	4	5	6
L'nT,w	65	55	50	45	40
FIIC	45	55	60	65	70
Comments	Below BCA 62	Clearly Audible	Audible	Barely Inaudible	Normally Inaudible

Acoustic test results provided are only indicative of acoustic performance and are site specific, so outcomes may vary from building to building. Royal Floors provides this information for guidance and indicative purposes only and does not guarantee any specific acoustic outcome. Indicative testing has been completed by acoustic engineers according to AS/NZS ISO 140.7:2006 and the rating has been determined as per AS ISO 717.2-2004.

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Part 7: Acoustic Test (RoyalStep 12mm + EQW512 Rubber Wavy Underlay)

System Tested	L'_{nTw} ³	FIIC ^{4, 5}	AAAC ⁶
Bare Concrete Floor (ECFS only) - for comparison purposes only	55	49	3
RoyalStep 12mm + EQW512 Rubber Wavy Underlay	42	64	5

FIELD MEASUREMENTS OF IMPACT SOUND INSULATION OF FLOORS



Date of Test : Tuesday, 29 March 2022
 Project No. : 3523
 Testing Company : Koikas Acoustics
 Checked by : Nick Koikas
 Place of Test: Residential apartments in Sydney, NSW
 Client : Everfloor / EverQuiet
 Client Address : -

Description of Floor System	Name	Thickness (mm)	Density (S)
12 mm laminate flooring		12	--
5 mm EverQuiet Rubber Wavy EQW512 underlay		5	--
Concrete slab		180-200	--
Suspended ceiling		80-150	--

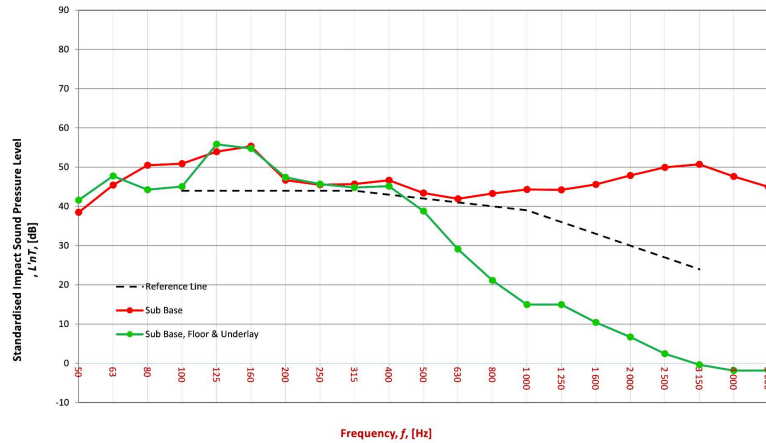
Room Width : 5 m
 Floor Length : 8 m
 Dimensions Area : 40.00 m²

Sample Width : 1 m
 Dimensions Length : 1 m
 Area : 1 m²

Receiver Rm	Location	Width	Length	Area	Height	Volume
5	en/Dining/Living directly t	5	8	40.00	2.7	108.00

Room Surfaces		
Walls	Floor	Ceiling
Plasterboard	Timber	Plasterboard

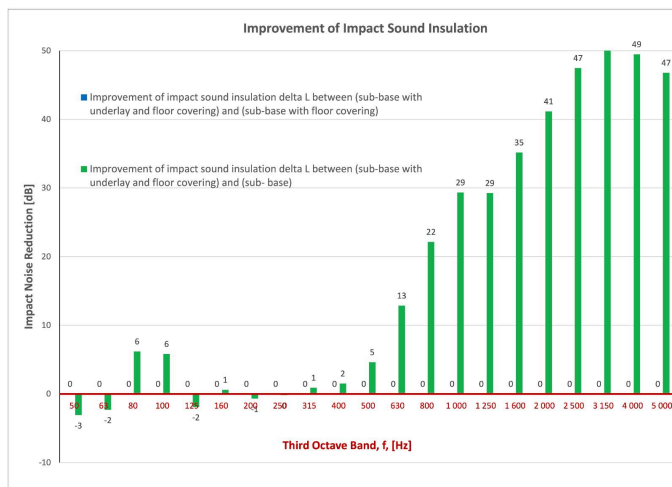
Frequency f Hz	L'nT (one-third octave) dB		
	Sub Base	Sub Base Floor	Sub Base Floor Underlay
50	38.5	N/A	41.6
63	45.4	N/A	47.8
80	50.4	N/A	44.3
100	50.9	N/A	45.1
125	53.9	N/A	55.8
160	55.3	N/A	54.7
200	46.7	N/A	47.4
250	45.5	N/A	45.7
315	45.7	N/A	44.8
400	46.6	N/A	45.1
500	43.4	N/A	38.8
630	41.9	N/A	29.1
800	43.3	N/A	21.1
1 000	44.3	N/A	14.9
1 250	44.2	N/A	15.0
1 600	45.6	N/A	10.4
2 000	47.9	N/A	6.7
2 500	49.9	N/A	2.5
3 150	50.7	N/A	-0.4
4 000	47.6	N/A	-1.9
5 000	44.9	N/A	-1.8



Sub Base		
L'nT,w	55	AS ISO 717.2 - 2004
CI	-9	AS ISO 717.2 - 2004
CI(50-2500)	-9	AS ISO 717.2 - 2004
CI(63-2000)	-9	AS ISO 717.2 - 2004
AAAC★	3 Star	AAAC Guideline
FIIC	49	ASTM E1007-14

Sub Base & Floor		
L'nT,w	N/A	AS ISO 717.2 - 2004
CI	N/A	AS ISO 717.2 - 2004
CI(50-2500)	N/A	AS ISO 717.2 - 2004
CI(63-2000)	N/A	AS ISO 717.2 - 2004
AAAC★	N/A	AAAC Guideline
FIIC	N/A	ASTM E1007-14

Sub Base, Floor & Underlay		
L'nT,w	42	AS ISO 717.2 - 2004
CI	2	AS ISO 717.2 - 2004
CI(50-2500)	3	AS ISO 717.2 - 2004
CI(63-2000)	3	AS ISO 717.2 - 2004
AAAC★	5 Star	AAAC Guideline
FIIC	64	ASTM E1007-14



Definitions of Noise Metrics

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CI(50-2500):
 Same as above, but for the frequency range 50 -2500 Hz.

CI(125-2000):
 Same as above, but for the frequency range 125 -2000 Hz.

AAAC Star R.	2	3	4	5	6
L'nT,w	65	55	50	45	40
FIIC	45	55	60	65	70
Comments	Below BCA 62	Clearly Audible	Audible	Barely Inaudible	Normally Inaudible

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Part 7: Acoustic Test (RoyalStep 12mm + EQW1012 Rubber Wavy Underlay)

System Tested	L'_{nTw} ³	FIIC ^{4, 5}	AAAC ⁶
Bare Concrete Floor (ECFS only) - for comparison purposes only	55	49	3
RoyalStep 12mm + EQW1012 Rubber Wavy Underlay	44	63	5

FIELD MEASUREMENTS OF IMPACT SOUND INSULATION OF FLOORS



Date of Test : Tuesday, 29 March 2022
 Project No. : 3523
 Testing Company : Koikas Acoustics
 Checked by : Nick Koikas
 Place of Test: Residential apartments in Sydney, NSW
 Client : Everfloor / EverQuiet
 Client Address : -

Description of Floor System	Name	Thickness (mm)	Density (S)
12 mm laminate flooring		12	--
10 mm EverQuiet Rubber Wavy EQW1012 underlay		10	--
Concrete slab		180-200	--
Suspended ceiling		80-150	--

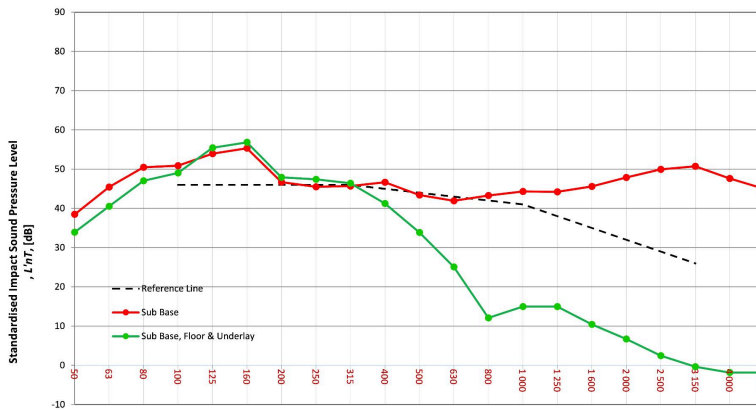
Room Width : 5 m
 Floor Length : 8 m
 Dimensions Area : 40.00 m²

Sample Width : 1 m
 Dimensions Length : 1 m
 Area : 1 m²

Receiver Rm	Location	Width	Length	Area	Height	Volume
5	en/Dining/Living directly t	5	8	40.00	2.7	108.00

Room Surfaces		
Walls	Floor	Ceiling
Plasterboard	Timber	Plasterboard

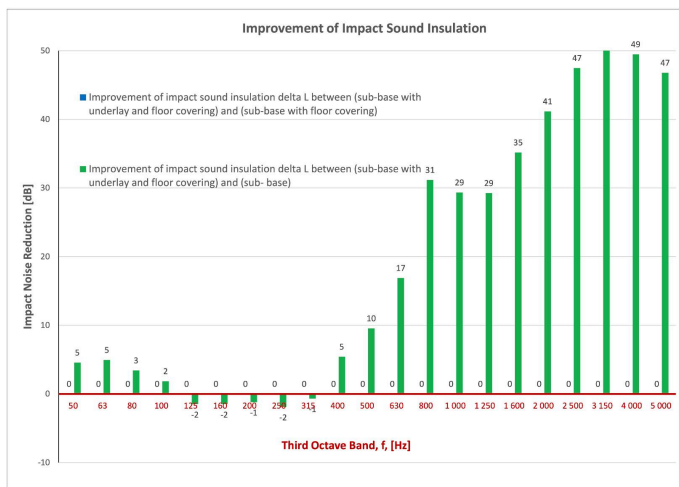
Frequency f Hz	L'nT (one-third octave) dB		
	Sub Base	Sub Base Floor	Sub Base Floor Underlay
50	38.5	N/A	33.9
63	45.4	N/A	40.5
80	50.4	N/A	47.0
100	50.9	N/A	49.0
125	53.9	N/A	55.4
160	55.3	N/A	56.8
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315	45.7	N/A	46.4
400	46.6	N/A	41.2
500	43.4	N/A	33.8
630	41.9	N/A	25.1
800	43.3	N/A	12.1
1000	44.3	N/A	14.9
1250	44.2	N/A	15.0
1600	45.6	N/A	10.4
2000	47.9	N/A	6.7
2500	49.9	N/A	2.5
3150	50.7	N/A	-0.4
4000	47.6	N/A	-1.9
5000	44.9	N/A	-1.8



Sub Base		
L'nT,w	55	AS ISO 717.2 - 2004
CI	-9	AS ISO 717.2 - 2004
CI(50-2500)	-9	AS ISO 717.2 - 2004
CI(63-2000)	-9	AS ISO 717.2 - 2004
AAAC★	3 Star	AAAC Guideline
FIIC	49	ASTM E1007-14

Sub Base & Floor		
L'nT,w	N/A	AS ISO 717.2 - 2004
CI	N/A	AS ISO 717.2 - 2004
CI(50-2500)	N/A	AS ISO 717.2 - 2004
CI(63-2000)	N/A	AS ISO 717.2 - 2004
AAAC★	N/A	AAAC Guideline
FIIC	N/A	ASTM E1007-14

Sub Base, Floor & Underlay		
L'nT,w	44	AS ISO 717.2 - 2004
CI	1	AS ISO 717.2 - 2004
CI(50-2500)	2	AS ISO 717.2 - 2004
CI(63-2000)	2	AS ISO 717.2 - 2004
AAAC★	5 Star	AAAC Guideline
FIIC	63	ASTM E1007-14



Definitions of Noise Metrics

FIIC:
 Field Impact Insulation Class is a single-number rating of how well a floor system attenuates impact type sounds, such as footsteps. Calculated from third-octave band normalised impact sound pressure level data and referenced to 10 m² as described in ASTM E989. The higher the single-number rating, the better its impact insulation performance.

L'nT,w:
 The Weighted Standardised Impact Sound Pressure Level when measured in situ referenced to a reverberation time (RT60) of 0.5 seconds. Used by the AAAC to determine their respective Star Rating.

CI:
 Spectrum adaption term is a low frequency correction factor. Typically for massive floors such as concrete, the values are about zero while for timber joist floors CI is positive because of the low resonant frequencies. Considers frequency range between 100- and 2500 Hz.

CI(50-2500):
 Same as above, but for the frequency range 50 -2500 Hz.

CI(125-2000):
 Same as above, but for the frequency range 125 -2000 Hz.

AAAC Star R.	2	3	4	5	6
L'nT,w	65	55	50	45	40
FIIC	45	55	60	65	70
Comments	Below BCA 62	Clearly Audible	Audible	Barely Inaudible	Normally Inaudible

Acoustic test results provided are only indicative of acoustic performance and are site specific, so outcomes may vary from building to building. Royal Floors provides this information for guidance and indicative purposes only and does not guarantee any specific acoustic outcome. Indicative testing has been completed by acoustic engineers according to AS/NZS ISO 140.7:2006 and the rating has been determined as per AS ISO 717.2-2004.

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Part 7: Acoustic Test (RoyalStep 12mm + EQW512 + 2mm IXPE)

System Tested	L'_{nTw} ³	FIIC ^{4, 5}	AAAC ⁶
Bare Concrete Floor (ECFS only) - for comparison purposes only	55	49	3
RoyalStep 12mm + EQW512 Rubber Wavy Underlay + 2mm IXPE	43	64	5

FIELD MEASUREMENTS OF IMPACT SOUND INSULATION OF FLOORS



Date of Test : Tuesday, 29 March 2022
 Project No. : 3523
 Testing Company : Koikas Acoustics
 Checked by : Nick Koikas
 Place of Test: Residential apartments in Sydney, NSW
 Client : Everfloor / EverQuiet
 Client Address : -

Description	Thickness (mm)	Density (S)
12 mm laminate flooring	12	--
5 mm EverQuiet Rubber Wavy EQW512 + 2 mm EverQuiet IXPE	7	--
Floor Concrete slab	180-200	--
System Suspended ceiling	80-150	--

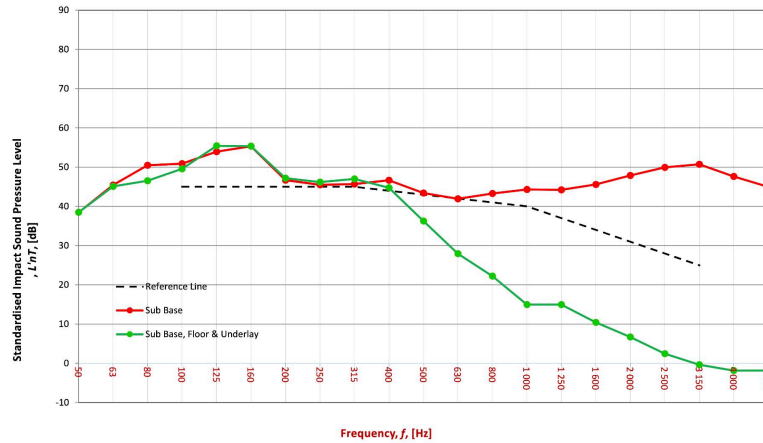
Room Width : 5 m
 Floor Length : 8 m
 Dimensions Area : 40.00 m²

Sample Width : 1 m
 Dimensions Length : 1 m
 Area : 1 m²

Receiver Rm	Location	Width	Length	Area	Height	Volume
5	en/Dining/Living directly t	5	8	40.00	2.7	108.00

Room Surfaces		
Walls	Floor	Ceiling
Plasterboard	Timber	Plasterboard

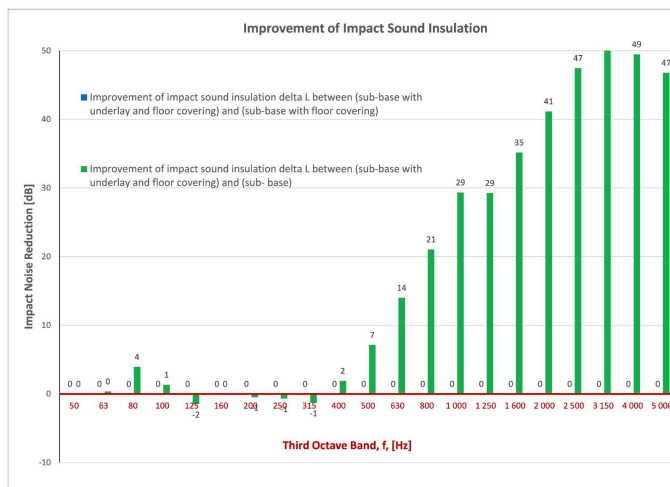
Frequency f Hz	L'nT (one-third octave) dB		
	Sub Base	Sub Base Floor	Sub Base Floor Underlay
50	38.5	N/A	38.5
63	45.4	N/A	45.1
80	50.4	N/A	46.5
100	50.9	N/A	49.5
125	53.9	N/A	55.4
160	55.3	N/A	55.3
200	46.7	N/A	47.2
250	45.5	N/A	46.2
315	45.7	N/A	47.0
400	46.6	N/A	44.7
500	43.4	N/A	36.3
630	41.9	N/A	27.9
800	43.3	N/A	22.2
1000	44.3	N/A	14.9
1250	44.2	N/A	15.0
1600	45.6	N/A	10.4
2000	47.9	N/A	6.7
2500	49.9	N/A	2.5
3150	50.7	N/A	-0.4
4000	47.6	N/A	-1.9
5000	44.9	N/A	-1.8



Sub Base	
L'nT,w	55
CI	-9
CI(50-2500)	-9
CI(63-2000)	-9
AAAC★	3 Star
FIIC	49

Sub Base & Floor	
L'nT,w	N/A
CI	N/A
CI(50-2500)	N/A
CI(63-2000)	N/A
AAAC★	N/A
FIIC	N/A

Sub Base, Floor & Underlay	
L'nT,w	43
CI	2
CI(50-2500)	2
CI(63-2000)	2
AAAC★	5 Star
FIIC	64



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