

INFORMATION DATA SHEET: ENG.OAK ON 2mm ULTRA GREEN FOAM U'LAY ACOUSTIC TESTS Date: February 2018

COMPLIANCE TESTING

All measurements were carried out in accordance with the guidelines and procedures outlined in AS/NZS ISO 140.7:2006. "Field measurements of impact sound insulation of floors" with the rating determined in accordance with AS ISO 717.2-2004. "Rating of sound insulation in buildings and of building elements".

MEASURED RESULTS AND CONCLUSIONS

The results of the impact noise tests are summarized in the table below:

The standard product was installed on a 200 mm concrete slab, approximately 80–120 mm deep suspended ceiling cavity and 13 mm plasterboard ceiling. All the ceiling/floor tested have met both the BCA 2016 criterion (L'nTw≤ 62) and City of Sydney DCP 2012 requirement (L'nTw≤ 55) for impact noise insulation. The lower the rating number the better for acoustic performance for L'nTw ratings.

The result confirms compliance NCC/BCA use Multi-residential requirements.

Product Sample	BCA Criterion	Test Result L'nT,w ³	AAAC ⁵ Star Rating	FIC ⁴⁺⁵	Compliance with NCC/BCA
2mm Ultra Green U'lay & 12mm Eng. Oak	L'nTw≤ 62	44 ✓	5	67	Yes ✓
2mm Ultra Green U'lay & 15mm Eng. Oak	L'nTw≤ 62	44 ✓	5	67	Yes ✓
2mm Ultra Green U'lay & 21mm Eng. Oak	L'nTw≤ 62	45 ✓	5	66	Yes ✓

Note; National Construction Code / Building Code of Australia (NCC/BCA).

Field Impact Insulation Class (FICC), higher the number the better its impact insulation performance. Minimum rate is 50.

Koikas Acoustics Pty Ltd has undertaken noise impact tests on 9 February 2018 at multi-residential units located at Little Bay Sydney. The results reveal that all the testing samples are compliant with the updated NCC/BCA 2016 impact noise insulation criterion with ceiling / floor systems.

A detailed test report is available on request.

The field test acoustic ratings provided in this report are indicative and for comparative purposes only. Acoustic ratings will vary depending on testing environment/conditions including, materials/structures of existing ceiling/floor system, room volume, internal layout and workmanship. Acoustic ratings can and will vary from building to building and room to room. Please consult with an appropriate building professional or acoustic engineer to confirm if the product selected meets the building and or body corporate acoustic impact sound isolation guidelines.

Disclaimer: Homemirus Pty Ltd trading as Preference Floors has used its reasonable endeavors to ensure the accuracy and reliability of the information contained herein and, to the extent permitted by law, will not be liable for any inaccuracies, omissions or errors in this information nor for any actions taken in reliance on this information. Products must be installed in accordance with relevant installation recommendations and industry best practices.

2mm Ultra Green Foam Underlay installed with 12mm Engineered Oak

FIELD MEASUREMENTS OF IMPACT SOUND INSULATION OF FLOORS (TEST 01)



Date of Test : Friday, 9 February 2018
 Project No. : 3368
 Testing Company: Koikas Acoustics
 Checked by: Nick Koikas
 Place of Test: Residential Units in Little Bay NSW
 Client: Preference Floors
 Client Address: -

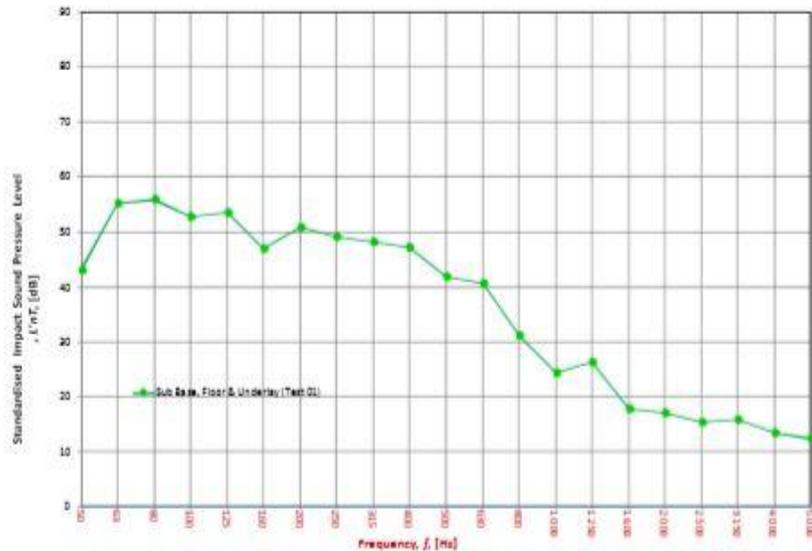
	Name	Thickness (mm)	Density (kg/m ³)
Description of	12 mm Oak Timber (Test 01)	12	--
Floor	2 mm Ultra Green Foam Underlay	2	--
System	200 mm Concrete Slab + 80-120 mm Suspended Ceiling	200 + 80-120	--
	13 mm Plasterboard Ceiling	13	--

Room Dimensions
 Width: 3 m
 Length: 3.5 m
 Area: 10.5 m²

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

Receiver Rm	Location	Width	Length	Area	Height	Volume	Room Surfaces		
							Walls	Floor	Ceiling
Residential Unit in Little Bay, NSW	3	3.5	10.5	2.4	25.2	Plasterboard	Carpet	Plasterboard	

Frequency f Hz	L _{nT} (one-third octave) dB		
	Sub Base	Sub Base Floor	Sub Base Floor Underlay
50	N/A	N/A	48.2
63	N/A	N/A	55.4
80	N/A	N/A	55.9
100	N/A	N/A	52.7
125	N/A	N/A	53.5
160	N/A	N/A	46.9
200	N/A	N/A	50.8
250	N/A	N/A	49.2
315	N/A	N/A	48.1
400	N/A	N/A	47.2
500	N/A	N/A	41.9
630	N/A	N/A	40.6
800	N/A	N/A	31.1
1 000	N/A	N/A	24.4
1 250	N/A	N/A	26.3
1 600	N/A	N/A	17.7
2 000	N/A	N/A	17.0
2 500	N/A	N/A	15.3
3 150	N/A	N/A	15.8
4 000	N/A	N/A	13.3
5 000	N/A	N/A	12.3



L _{nT,w}	N/A	AS ISO 717.2 - 2004
C _i	N/A	AS ISO 717.2 - 2004
C _i (50-2500)	N/A	AS ISO 717.2 - 2004
C _i (63-2000)	N/A	AS ISO 717.2 - 2004
AAAC★	N/A	AAAC Guideline
FIG	N/A	AS/NZS 1007-14

L _{nT,w}	N/A	AS ISO 717.2 - 2004
C _i	N/A	AS ISO 717.2 - 2004
C _i (50-2500)	N/A	AS ISO 717.2 - 2004
C _i (63-2000)	N/A	AS ISO 717.2 - 2004
AAAC★	N/A	AAAC Guideline
FIG	N/A	AS/NZS 1007-14

Sub Base, Floor & Underlay (Test 01)		
L _{nT,w}	44	AS ISO 717.2 - 2004
C _i	0	AS ISO 717.2 - 2004
C _i (50-2500)	3	AS ISO 717.2 - 2004
C _i (63-2000)	3	AS ISO 717.2 - 2004
AAAC★	3 Star	AAAC Guideline
FIG	4†	AS/NZS 1007-14

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2mm Ultra Green Foam Underlay installed with 15mm Engineered Oak

FIELD MEASUREMENTS OF IMPACT SOUND INSULATION OF FLOORS (TEST 02)



Date of Test : Friday 9 February 2018
 Project No. : 3369
 Testing Company : Koikas Acoustics
 Checked by : Nick Koikas
 Place of Test : Residential Units in Little Bay NSW
 Client : Preference Floors
 Client Address : -

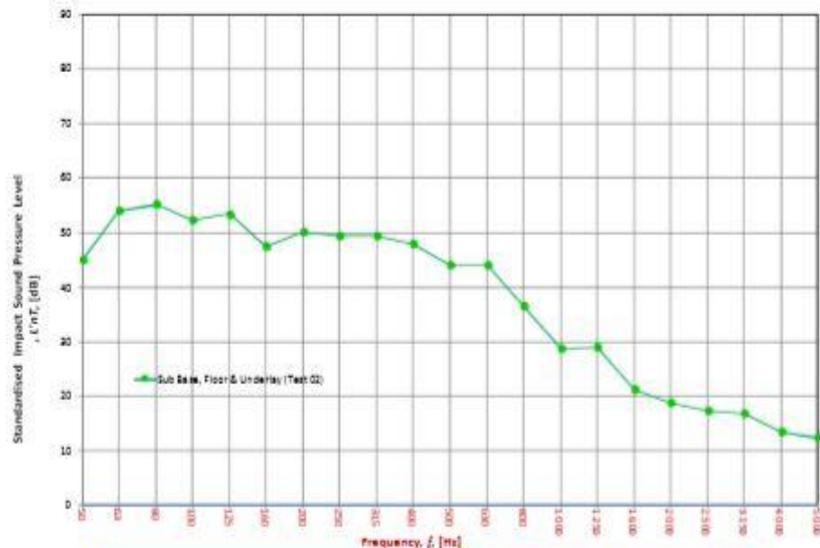
Description of Floor System	Name	Thickness (mm)	Density (kg/m ³)
15 mm Oak Timber (Test 02)	15 mm Oak Timber (Test 02)	15	--
2 mm Ultra Green Foam Underlay	2 mm Ultra Green Foam Underlay	2	--
200 mm Concrete Slab + 80-120 mm Suspended Ceiling	200 mm Concrete Slab + 80-120 mm Suspended Ceiling	200 + 80-120	--
13 mm Plasterboard Ceiling	13 mm Plasterboard Ceiling	13	--

Room Dimensions
 Width : 3 m
 Length : 3.5 m
 Area : 10.5 m²

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

Receiver Rm	Location	Width	Length	Area	Height	Volume	Room Surfaces		
							Walls	Floor	Ceiling
Residential Unit in Little Bay, NSW	Residential Unit in Little Bay, NSW	3	3.5	10.5	2.4	25.2	Plasterboard	Carpet	Plasterboard

Frequency f [Hz]	L _{nT} (one-third octave) [dB]		
	Sub Base	Sub Base Floor	Sub Base Floor Underlay
50	N/A	N/A	44.9
63	N/A	N/A	54.1
80	N/A	N/A	55.2
100	N/A	N/A	52.3
125	N/A	N/A	53.4
160	N/A	N/A	47.5
200	N/A	N/A	50.2
250	N/A	N/A	49.4
315	N/A	N/A	49.3
400	N/A	N/A	48.0
500	N/A	N/A	44.0
630	N/A	N/A	44.2
800	N/A	N/A	36.5
1 000	N/A	N/A	28.8
1 250	N/A	N/A	29.0
1 600	N/A	N/A	21.2
2 000	N/A	N/A	18.7
2 500	N/A	N/A	17.2
3 150	N/A	N/A	16.7
4 000	N/A	N/A	13.3
5 000	N/A	N/A	12.3



L _{nT,w}	N/A	AS ISO 717.2 - 2004
C _i	N/A	AS ISO 717.2 - 2004
C _i (50-2500)	N/A	AS ISO 717.2 - 2004
C _i (63-2000)	N/A	AS ISO 717.2 - 2004
AAAC★	N/A	AAAC Guideline
FRC	N/A	AS/NZS 1007-14

L _{nT,w}	N/A	AS ISO 717.2 - 2004
C _i	N/A	AS ISO 717.2 - 2004
C _i (50-2500)	N/A	AS ISO 717.2 - 2004
C _i (63-2000)	N/A	AS ISO 717.2 - 2004
AAAC★	N/A	AAAC Guideline
FRC	N/A	AS/NZS 1007-14

L _{nT,w}	44	AS ISO 717.2 - 2004
C _i	0	AS ISO 717.2 - 2004
C _i (50-2500)	3	AS ISO 717.2 - 2004
C _i (63-2000)	3	AS ISO 717.2 - 2004
AAAC★	5 Star	AAAC Guideline
FRC	67	AS/NZS 1007-14

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2mm Ultra Green Foam Underlay installed with 21mm Engineered Oak

FIELD MEASUREMENTS OF IMPACT SOUND INSULATION OF FLOORS (TEST 03)



Date of Test : Friday, 9 February 2018
 Project No. : 3369
 Testing Company : Koikas Acoustics
 Checked by : Nick Koikas
 Place of Test : Residential Units in Little Bay NSW
 Client : Preference Floors
 Client Address : -

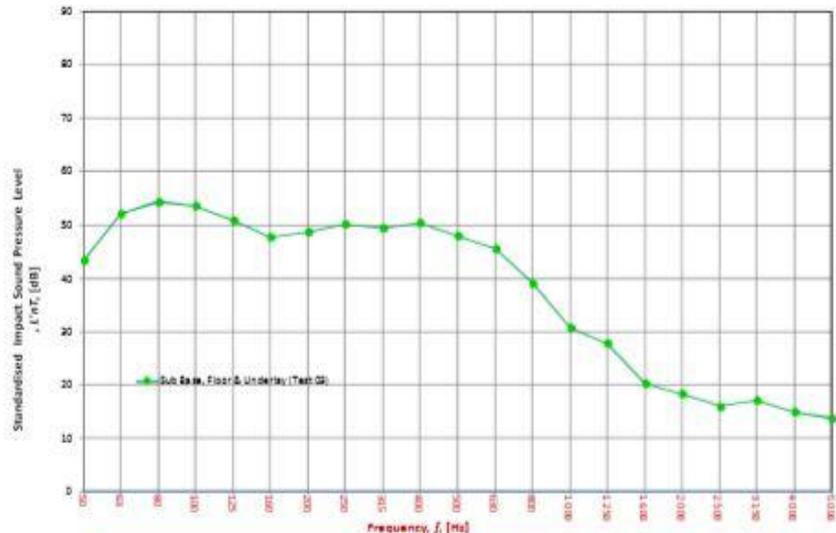
Description of System	Name	Thickness (mm)	Density (kg/m ³)
21 mm Oak Timber (Test 03) 2 mm Ultra Green Foam Underlay 200 mm Concrete Slab + 80-120 mm Suspended Ceiling 13 mm Plasterboard Ceiling	21 mm Oak Timber (Test 03)	21	--
	2 mm Ultra Green Foam Underlay	2	--
	200 mm Concrete Slab + 80-120 mm Suspended Ceiling	200 + 80-120	--
	13 mm Plasterboard Ceiling	13	--

Room Dimensions
 Width : 3 m
 Length : 3.5 m
 Area : 10.5 m²

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

Receiver Rm	Location	Width	Length	Area	Height	Volume	Room Surfaces		
							Walls	Floor	Ceiling
Receiver Rm	Residential Units in Little Bay NSW	3	3.5	10.5	2.4	25.2	Plasterboard	Carpet	Plasterboard

Frequency f [Hz]	L'nT (one-third octave) dB		
	Sub Base	Sub Base Floor	Sub Base Floor Underlay
50	N/A	N/A	49.4
63	N/A	N/A	52.2
80	N/A	N/A	54.3
100	N/A	N/A	53.6
125	N/A	N/A	50.9
160	N/A	N/A	47.7
200	N/A	N/A	48.7
250	N/A	N/A	50.2
315	N/A	N/A	49.4
400	N/A	N/A	50.4
500	N/A	N/A	47.9
630	N/A	N/A	45.6
800	N/A	N/A	39.1
1 000	N/A	N/A	30.6
1 250	N/A	N/A	27.7
1 600	N/A	N/A	20.2
2 000	N/A	N/A	18.3
2 500	N/A	N/A	15.9
3 150	N/A	N/A	17.0
4 000	N/A	N/A	14.8
5 000	N/A	N/A	13.7



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
FIG	N/A	ASTM E1007-14

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
FIG	N/A	ASTM E1007-14

Sub Base, Floor & Underlay (Test 03)		
L'nT,w	45	AS ISO 717.2 - 2004
CI	0	AS ISO 717.2 - 2004
CI(50-2500)	1	AS ISO 717.2 - 2004
CI(63-2000)	1	AS ISO 717.2 - 2004
AAAC★	3 Star	AAAC Guideline
FIG	66	ASTM E1007-14

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