

INFORMATION DATA SHEET: 8, 12 & 14mm Laminate on 2mm Ultra Green Foam U'Lay Acoustic Test 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,w³	AAAC⁵ Star Rating	FIIC ⁴¹⁵	Compliance with NCC/BCA
2mm Ultra Green U'Lay & 8mm Laminate	L'nTw≤ 62	44 🗸	5	66	Yes✓
2mm Ultra Green U'Lay & 12mm Laminate	L'nTw≤ 62	45 🗸	5	66	Yes√
2mm Ultra Green U'Lay & 14mm Laminate	L'nTw≤ 62	46 ✓	4	64	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 Acosutics 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.



2mm Ultra Green Foam U'Lay installed with 8mm Laminate

FIELD MEASUREMENTS OF IMPACT SOUND INSULATION OF FLOORS (TEST 01) KOIKAS ACOUSTICS Date of Test : Friday, 9 February 2018 Project No. : Testing Company: 3369 Koikas Acoustics Checked by: Nick Koikas Residential Units in Little Bay NSW Place of Test: Preference Floors Client Address Thickness (mm) Density (SI) Description B mm Laminated Timber (Test 01) 2 mm Ultra Green Foam Underlay 200 mm Concrete Slab + 80-120 mm Suspended Ceiling System 13 mm Plasterboard Ceiling m m² Floor 3.5 10.5 Dimensions Area: Sample Dimensions Width: m m² Length: Area: om Surfaces Ceiling Location Height Recidential Unit in Little Say NSW Receiver Rm 10.5 25.2 L'nT (one-third octave) dB Sub Base | Sub Base | Sub Base Hz Floor Floor Underlay 63 N/A N/A 57. 59.6 N/A N/A 54.4 125 N/A N/A N/A 53.2 Sound Pressure L T, [dB] N/A N/A N/A 50 200 49.3 250 49.7 313 N/A N/A 400 500 N/A N/A N/A N/A 45.9 40.9 40 Puppet S 630 N/A NVA 20 800 N/A N/A N/A 24.7 1 250 26.8 20 1,900 N/A N/A N/A N/A 2 000 18.7 10 3 150 N/A N/A 4 000 5 000 Uniderlay (Test 0) AS ISO 717.2 - 2004 AS ISO 717.2 - 2004 L'nT,v AS ISO 717.2 - 2004 AS ISO 717.2 - 2004 L'nT,w N/A N/A N/A N/A AS 150 717 2 - 2004 AS (50 717.2 - 2004 0 AS ISO 717.2 - 2004 AS ISO 717.2 - 2004 AAAC Guidleline N/A N/A N/A AS ISO 717.2 - 2004 AS ISO 717.2 - 2004 AAAC Guidleline Ci(50-2500) Ci(63-2000) N/A N/A AS (50) 717.2 - 2004 AS (50) 717.2 - 2004 5 N/A AAAC Guidleline 3 Star 45TM \$1007-14 ASTM \$1007-14 ASTM \$1007-16



2mm Ultra Green Foam U'Lay installed with 12mm Laminate

FIELD MEASUREMENTS OF IMPACT SOUND INSULATION OF FLOORS (TEST 02) KOIKAS ACOUSTICS Date of Test : Friday, 9 February 2018 Project No. : 3360 Testing Company: Checked by: Koikas Acoustics Nick Koikas Place of Test: Residential Units in Little Bay NSW Client Preference Floors Client Address Thickness (mm) Density (SI) Description 12 mm Laminated Timber (Test 02) 12 2 mm Ultra Green Foam Underlay Floor 200 mm Concrete Slab + 80-120 mm Suspended Ceiling 200 + 80-120 13 mm Plasterboard Ceiling 5/stem 13 Room Width: Floor Length: 3.5 Dimensions 10.5 m² Sample Dimensions Width: m Length: Area: Room Surfaces Ceiling Height Walls Receiver Rm 3.5 10.5 24 25.2 Plasterhoard Carpet Placterboard Frequenc LinT (one-third octave) dB b Base | Sub Base | Sub Base Hz Floor Floor 90 Underlay 49.6 70 50 N/A N/A 80 N/A N/A 58.2 100 60 54.2 N/A N/A 125 N/A N/A 53.7 49.3 160 N/A N/A 200 48.1 50 N/A N/A 250 90.2 N/A N/A Sound 5 400 N/A N/A N/A 49.5 46.0 40 300 N/A Impact 630 N/A N/A 43.8 20 800 N/A N/A 37.8 1 000 Standardised 1 250 N/A N/A 32.5 20 1 600 N/A N/A 24.5 19.0 Z 000 N/A N/A 2 500 N/A N/A 18.8 N/A NVA 4 000 N/A N/A 18.4 N/A 16.2 AS ISO 717.2 - 2004 L'nT,w N/A AS ISO 717.2 - 2004 L'oT,w N/A AS ISO 717.2 - 2004 LINTW 45 ci N/A AS ISO 717.2 - 2004 AS ISO 717.2 - 2004 0 AS (SO 717.2 - 2004 N/A Ci(50-2500) N/A AS ISO 717.2 - 2004 N/A AS ISO 717.2 - 2004 3 AS ISO 717.2 - 2004 AS ISO 717.2 - 2004 AS (50 717.2 - 2004 AS ISO 717.2 - 2004 Ci(63-2000) N/A N/A AAAC Guidleline N/A AAAC Guidleline AAAC Guidleline N/A ASTM \$1007-14 ACTIVIESSO7-14 44 ASTN/\$1007-14



2mm Ultra Green Foam U'Lay installed with 14mm Laminate

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



Date of Test : Friday, 9 February 2018 Project No.: 3369 Koikas Acoustics Testing Company: Nick Koikas Checked by: Place of Test: Residential Units in Little Bay NSW Client Preference Floors Client Address Thickness (mm) Density (SI) Description 14 mm Laminated Timber (Test 03) 2 mm Ultra Green Foam Underlay 200 mm Concrete Slab + 80-120 mm Suspended Ceiling Floor 200 + 80-120 13 mm Plasterboard Ceiling 13 System Room Floor Width: Length: 3.5 Dimensions Area: 10.5 m² Sample Dimensions Length: Area:

											11	Room Surfaces												
Receiver Rm		Eccation Recidental Unit in Utile Say NSW		Width	Length		Area 10.5		ht	Volume			- 1	Walls			Floor					Ceiling		
				3	3.5	- 1				25.2			Plasterboard		ard .	Carpet				Plasterboard				
requency	10077	one-third oct	Sh (quet		90 -				7				T				_	Ť		Т				_
f Hz	Sub Base		Sub Base Floor Underlay		80		+	+	+	+			H			+	+	+	+	+	+		+	
50 63	N/A N/A	N/A N/A	45.2 55.2		70 -		+	+	+	+	-		H	+		+	+	+	+	+	+	+	+	_
80	N/A	N/A	57.7		90000												-	_	_	_		_		
100	N/A	N/A	36.4	3	60 -				+	_			+	+		_	\rightarrow	_						
123	N/A	N/A	54.5	3	9			-																
160	N/A	N/A	49.5																	- 1				
200	N/A	N/A	90.4	9	50 -	1							+					_	_		=	\neg	=	_
250	N/A	N/A	90.2	2		6								0						- 1				
315	N/A	N/A	49.1	1	=				-							-			-		_	-1		
400	N/A	N/A	50.2	3	L'nT, [dB]												-						\neg	
500	N/A	N/A	45.5	ě	12												1		- 1	- 1				
630	N/A	N/A	45.7	1	20													×						
800	N/A	N/A	41.9	1	5//6													- 1						
1 000	N/A N/A	N/A	38.4 31.3	3	į.			200 TV		1000									-					
		N/A	25.3	3	20	-		ub Rama, Flo	act & St	nderlay (Tex	(40)		_	_			_	_	_	1			_	
1 900	N/A N/A	N/A N/A	19.3	ě					-															
2 500	N/A	N/A	18.1	Granda	3																			-
3 150	N/A	N/A	17.5		10	-	-	-	-	-	_		-	-		-	-	-	-	-	-	-	\rightarrow	
4 000	N/A	N/A	15.0		20170																			
5 000	N/A	N/A	13.5																	- 1				
	100	100			D		8	ti di	R	B 1	-		90				+	-	+	10	100	M	-	-
	Ö.	XI-	200		-		0	8	Di-	B 8			100	7.00	8	8	200	37	200	2000	2500	212	20.00	
													reques	ney, £ [ta)									
															9	ub Bas	e. Flo	or &	Und	rlay	(Test	031		
LinTw	N/A	AS ISO 717	2 - 2004			-	nT.w	N/A		AS ISO 71	2 - 2	554				nT.w	4		AS IS				4	
O	N/A	AS ISO 717					Ci	N/A		AS ISO 71						0	Ċ		AS IS					
(ISO-2500)	N/A	AS ISO 717				100000	-2500			45 (50 71					Citt	0-2500			AS IS					
(63-2000)	N/A	AS ISO 717					3-2000			45 (50 71						3-2000	1		AS IS					
AAAE *		AAAC Guid					AAD			LAAC GUI						ARAC +	45		AAAC			100		
nc n	N/A	ASTM \$1007+				100	FIIC	N/A		STIVI \$1007	1121111					FAC			ASTM	200				