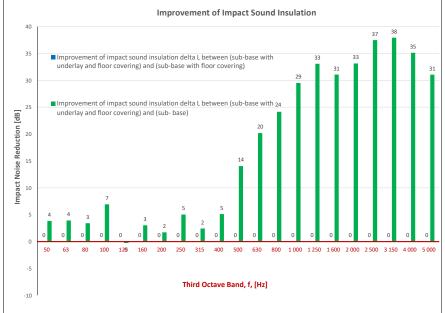
FIELD MEASUREMENTS OF IMPACT SOUND INSULATION OF FLOORS

	WILAS				0130			301				LOOP	10				
Date of Test Project No. : Testing Con Checked by Place of Tes Client Client Addre	npany : : t:	4225 Koikas Acou Nick Koikas Residential Paxwood Pt	September 2 istics building in M y Ltd (Clever	acquarie Par													
D		Name	T'									Density (SI)					
Description of			Timber 12mr 5mm underla								2						
Floor		Concrete	Smin undena	ay						20							
System		Concrete								20	00						
Room		Width :	3.6	m													
Floor		Length :	3.6	m													
Dimensions		Area :	13	m²													
Sample		Width :	1	m													
Dimensions		Length :	1	m													
		Area :	1	m²													R
		Loca	ation	Width	Lengt	h	Area	ŀ	Height	Volu	ume			Walls	;		
Receiver Rm	1	Unit directly be	low - livingarea	3.6	3.6		13		2.7	3	5		P	asterbo	ard		
Frequency	L'nT /c	one-third oct	avo) dB	1	90												Т
f	Sub Base	Sub Base	Sub Base	-													
Hz	505 5036	Floor	Floor Underlay		80												
50	59.4	N/A	55.6		70												
63	57.5	N/A	53.5														
80	56.0	N/A	52.6														
100 125	53.4 47.8	N/A N/A	46.5 48.0		60	•											
125	47.8	N/A	48.0	<u>ā</u>													
200	47.0	N/A	45.3		50			\searrow						_			
250 315	47.1 47.6	N/A N/A	42.1 45.2	a d						-							
400	47.4	N/A	42.3	pu	E 40			ł			- + -				_		
500 630	48.2 48.3	N/A N/A	34.2 28.1	5 1	40 [gp] '<i>L</i>u,7 '												-
800	48.3	N/A	28.1		- 30												
1 000	47.5	N/A	18.0	2			· F	eferenc	Line								
1 250	48.4	N/A	15.3	asi d	20			ub Base								\sim	
1 600 2 000	46.3 48.2	N/A N/A	15.3 15.0	dare	20			h Baca	Floor 8	Underlay							•
2 500	48.2 52.5	N/A	15.0	thandardised Imnart Sound Pressure Level				5 5636	. 1001 &	Gilderiay							
3 150	52.8	N/A	14.8		10												
4 000	49.2	N/A N/A	14.0														
5 000	44.5	11/1	13.5		0	S 5	5 8	, p	,		2	N 33	4		6	 ∞ ⊦	<u> </u>
L		1	1	1		0 (100	125	160	200	315	8		630	008	1 000
												Free	quency, f,	[HZ]			

							-	 	- 1/1/ []				
Sub Base				Sub Bas	e & Floor		Sub	Sub Base, Flo	Sub Base, Floor & Und	Sub Base, Floor & Underla	Sub Base, Floor & Underlay	Sub Base, Floor & Underlay	
L'nT,w	56	AS ISO 717.2 - 2004		L'nT,w	N/A	AS ISO 717.2 - 2004		L'nT,w	L'nT,w 39	L'nT,w 39 AS ISO 717	L'nT,w 39 AS ISO 717.2 - 7	L'nT,w 39 AS ISO 717.2 - 200	L'nT,w 39 AS ISO 717.2 - 2004
Ci	-10	AS ISO 717.2 - 2004		Ci	N/A	AS ISO 717.2 - 2004		Ci	Ci 0	Ci 0 AS ISO 717	Ci 0 AS ISO 717.2 - 7	Ci 0 AS ISO 717.2 - 200	Ci 0 AS ISO 717.2 - 2004
Ci(50-2500)	-6	AS ISO 717.2 - 2004		Ci(50-2500)	N/A	AS ISO 717.2 - 2004		Ci(50-2500)	Ci(50-2500) 6	Ci(50-2500) 6 AS ISO 717	Ci(50-2500) 6 AS ISO 717.2 - 2	Ci(50-2500) 6 AS ISO 717.2 - 200	Ci(50-2500) 6 AS ISO 717.2 - 2004
Ci(63-2000)	-8	AS ISO 717.2 - 2004		Ci(63-2000)	N/A	AS ISO 717.2 - 2004		Ci(63-2000)	Ci(63-2000) 4	Ci(63-2000) 4 AS ISO 717	Ci(63-2000) 4 AS ISO 717.2 - 7	Ci(63-2000) 4 AS ISO 717.2 - 200	Ci(63-2000) 4 AS ISO 717.2 - 2004
AAAC	2 Star	AAAC Guidleline		AAAC	N/A	AAAC Guidleline		AAAC	AAAC 6 Star	AAAC 6 Star AAAC Guid	AAAC 6 Star AAAC Guidlelin	AAAC 6 Star AAAC Guidleline	AAAC 6 Star AAAC Guidleline
FIIC	46	ASTM E1007-14		FIIC	N/A	ASTM E1007-14		FIIC	FIIC 70	FIIC 70 ASTM E1007	FIIC 70 ASTM E1007-14	FIIC 70 ASTM E1007-14	FIIC 70 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 $10\,m^2$ as described in ASTM E989. The higher the single-number rating, the better its impact insulation performance.

1 600

2 000 2 500

1 250

Room Surfaces

Floor

Carpet

Ceiling

Plasterboard

-

3 150 4 000

8

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