

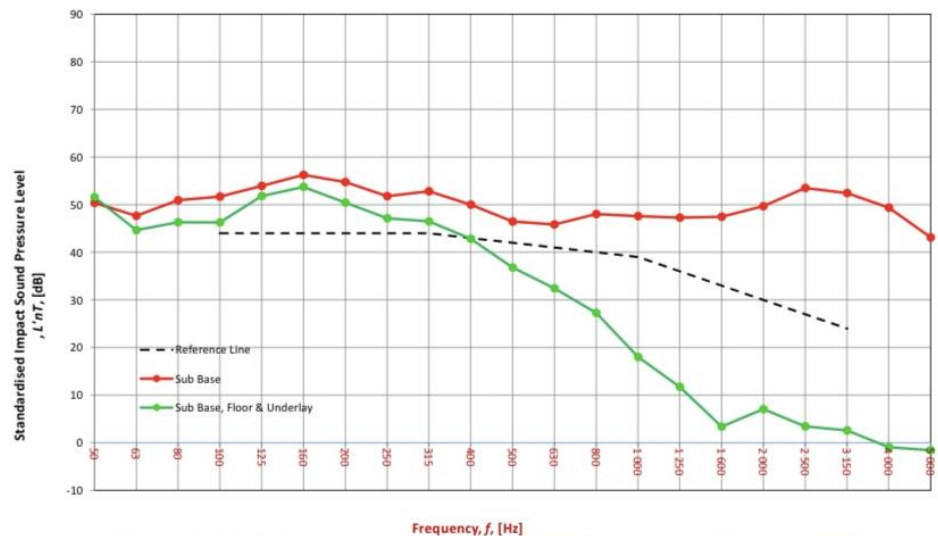
Viva Luxury Vinyl Plank Acoustic Test (4.5mm).

Description of Floor System	Name	Thickness (mm)	Density (St)
	Viva Luxury Vinyl Planks	4.5 mm	--
	Rubber underlay	5 mm	--
	Concrete Slab	--	--
	--	--	--
Room Floor Dimensions	Width :	4 m	
	Length :	7 m	
	Area :	28.00 m ²	
Sample Dimensions	Width :	1 m	
	Length :	1 m	
	Area :	1 m ²	

Receiver Rm	Location	Width	Length	Area	Height	Volume
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Room Surfaces	Walls	Floor	Ceiling
	Plasterboard	Timber	Plasterboard

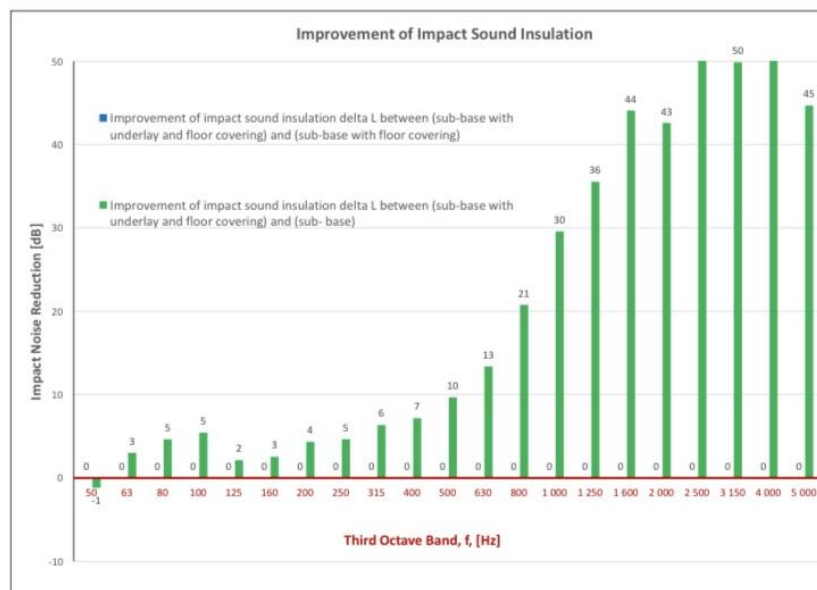
Frequency f Hz	L'nT (one-third octave) dB		
	Sub Base	Sub Base Floor	Sub Base Floor Underlay
50	50.4	NA	51.5
63	47.7	NA	44.7
80	50.9	NA	46.3
100	51.7	NA	46.3
125	53.9	NA	51.8
160	56.3	NA	53.7
200	54.7	NA	50.4
250	51.8	NA	47.2
315	52.8	NA	46.5
400	50.0	NA	42.8
500	46.5	NA	36.8
630	45.8	NA	32.5
800	48.0	NA	27.3
1 000	47.6	NA	18.0
1 250	47.3	NA	11.7
1 600	47.5	NA	3.4
2 000	49.7	NA	7.1
2 500	53.5	NA	3.4
3 150	52.4	NA	2.6
4 000	49.4	NA	-0.9
5 000	43.1	NA	-1.6



Sub Base		
L'nT,w	57	AS ISO 717.2 - 2004
Ci	-9	AS ISO 717.2 - 2004
Ci(50-2500)	-8	AS ISO 717.2 - 2004
Ci(63-2000)	-9	AS ISO 717.2 - 2004
AAAC★	2 Star	AAAC Guideline
FIIC	47	ASTM E1007-14

Sub Base & Floor		
L'nT,w	NA	AS ISO 717.2 - 2004
Ci	NA	AS ISO 717.2 - 2004
Ci(50-2500)	NA	AS ISO 717.2 - 2004
Ci(63-2000)	NA	AS ISO 717.2 - 2004
AAAC★	NA	AAAC Guideline
FIIC	NA	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)	2	AS ISO 717.2 - 2004
Ci(63-2000)	2	AS ISO 717.2 - 2004
AAAC★	5 Star	AAAC Guideline
FIIC	66	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 Audible	Normally Inaudible