

Acoustic Performance

With industry requirements and standards set by local certifiers becoming more stringent in all aspects of construction, builders are finding that acoustic performance is of increasing importance. For the purposes of this report we have worked with both 'Impact Sound Insulation' and 'Impact Isolation Class' acoustic standards.

Impact Sound Insulation

Impact Sound Insulation is measured to ISO 717.2. This refers to the rating of sound insulation of building elements and within buildings.

Impact Sound Insulation is rated to AS/NZS ISO 140.7 which measures the same aspects but refers to field measurements of impact sound insulation of floors.

Impact Isolation Class

Much like Impact Sound Insulation, Impact Isolation Class is also measured to ISO 717.2 and rated to AS/NZS ISO 140.7 for the measurement of sound insulation in building elements and buildings and the field measurements of impact sound insulation of floors respectively.

Impact Isolation Class is calculated according to ASTM E492-90 and ASTM E989-06.

Measuring Acoustic Performance

As every building returns unique results, it is challenging to provide accurate acoustic information. The complexity of this is further increased by the fact that there are a number of ways that a subfloor and ceiling can be constructed, as these elements contribute to the overall acoustic performance of a flooring installation.

In order to ensure that our information is as accurate and complete as possible, Imagine Floors by Airstep has partnered with an acoustic engineering firm. Our partner completes real world site tests and employs their expertise and advanced modelling software to establish relevant estimates of what results should be achieved based on the most common construction methods.

These results are designed to assist customers in understanding how our product performs and facilitate informed decision making for those seeking materials for their project.

On site testing may still be required to determine in situ values as this is the only way to get a result that is accurate to the acoustic rating of that particular installation.

As a general rule, the lower the LnTw figure in the table to the left, the better the performance of the flooring. When referencing AIIc, a higher figure is better.

Type	Product	Underlay	Test Type	AAAC Star Rating	180mm Slab with 28mm Furrings, 200mm Cavity & 10mm Plaster	200mm Slab with 28mm Furrings, 200mm Cavity & 10mm Plaster (model)	230mm Slab with 28mm Furrings & 10mm Plaster	270mm Slab with 28mm Furrings & 10mm Plaster	Report #
Laminate	Eucalyptus Steps	AquaDefend	LnTw	☆☆☆☆				47	7554-1.4R
Laminate	Eucalyptus Steps	AcoustiStep	ΔL,w					18dB	6913-2.2R
Laminate	Eucalyptus Steps	Timbermax	LnT	☆☆☆☆			49		6603-1.4R
Laminate	Alira Standard	AquaDefend	LnTw	☆☆☆☆				47	7554-1.4R
Laminate	Alira Standard	AcoustiStep	ΔL,w					18dB	6913-2.2R
Laminate	Alira Standard	Timbermax	LnTw	☆☆☆☆			49		6603-1.4R
Laminate	Eucalyptus Steps Gloss	AquaDefend	LnTw	☆☆☆☆				47	7554-1.4R
Laminate	Eucalyptus Steps Gloss	AcoustiStep	ΔL,w					18dB	6913-2.2R
Laminate	Eucalyptus Steps Gloss	Timbermax	LnTw	☆☆☆☆			49		6603-1.4R
Laminate	Alira Gloss	AquaDefend	LnTw	☆☆☆☆				47	7554-1.4R
Laminate	Alira Gloss	AcoustiStep	ΔL,w					18dB	6913-2.2R
Laminate	Alira Gloss	Timbermax	LnTw	☆☆☆☆			49		6603-1.4R
Laminate	Masterpieces	AquaDefend	LnTw	☆☆☆☆				47	7554-1.4R
Laminate	Masterpieces	AcoustiStep	ΔL,w					18dB	6913-2.2R
Laminate	Masterpieces	Timbermax	LnTw	☆☆☆☆			49		6603-1.4R
Laminate	Keeta	AquaDefend	LnTw	☆☆☆☆				47	7554-1.4R
Laminate	Keeta	AcoustiStep	ΔL,w					18dB	6913-2.2R
Laminate	Keeta	Timbermax	LnTw	☆☆☆☆			49		6603-1.4R
Laminate	Kalimera	AquaDefend	LnTw	☆☆☆☆				47	7554-1.4R
Laminate	Kalimera	AcoustiStep	ΔL,w					18dB	6913-2.2R
Laminate	Kalimera	Timbermax	LnTw	☆☆☆☆			49		6603-1.4R
Laminate	Habitat	AquaDefend	LnTw	☆☆☆☆				47	7554-1.4R
Laminate	Habitat	AcoustiStep	ΔL,w					18dB	6913-2.2R
Laminate	Habitat	Timbermax	LnTw	☆☆☆☆			49		6603-1.4R
Laminate	Eucalyptus Steps XL	AquaDefend	LnTw	☆☆☆☆				50	7554-1.5R
Laminate	Eucalyptus Steps XL	Timbermax	LnT	☆☆☆☆		49			6124-2.2r
Laminate	Eucalyptus Steps XL	Step Silent	LnTw	☆☆☆		52			6124-2.3r
Laminate	Eucalyptus Steps XL	AcoustiStep	ΔL,w					16dB	6913-2.1R
Laminate	Alira XL	AquaDefend	LnTw	☆☆☆☆				50	7554-1.5R
Laminate	Alira XL	Timbermax	LnT	☆☆☆☆		49			6124-2.2r
Laminate	Alira XL	Step Silent	LnTw	☆☆☆		52			6124-2.3r
Laminate	Alira XL	AcoustiStep	ΔL,w					16dB	6913-2.1R
Laminate	Adare	AquaDefend	LnTw	☆☆☆☆				50	7554-1.5R
Laminate	Adare	Timbermax	LnT	☆☆☆☆		49			6124-2.2r
Laminate	Adare	Step Silent	LnTw	☆☆☆		52			6124-2.3r
Laminate	Adare	AcoustiStep	ΔL,w					16dB	6913-2.1R

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Laminate	Ridgeline	AquaDefend	LnTw	☆☆☆☆				50	7554-1.5R
Laminate	Ridgeline	Timbermax	LnT	☆☆☆☆		49			6124-2.2r
Laminate	Ridgeline	Step Silent	LnTw	☆☆☆		52			6124-2.3r
Laminate	Ridgeline	AcoustiStep	ΔL,w					16dB	6913-2.1R
Engineered Timber	Reclaimed Wild Oak	AquaDefend	LnTw	☆☆☆☆				47	7554-1.6R
Engineered Timber	Reclaimed Wild Oak	Helix	LnTw	☆☆☆☆				50	7554-2.1r
Engineered Timber	Reclaimed Wild Oak	AcoustiStep	ΔL,w					17dB	6913-2.3R
Engineered Timber	Reclaimed Wild Oak	AquaDefend	LnTw	☆☆☆☆				47	7554-1.6R REV B
Engineered Timber	Reclaimed Wild Oak	Drilay	LnT	☆☆☆		51			6124-1.2r
Luxury Vinyl Plank	Naturale Plank 3.0	None	ΔL,w					3bD	6844-1.1R
Luxury Vinyl Plank	Naturale Plank 3.0	Helix	LnTw	☆☆☆☆				46	7554-1.2R
Luxury Vinyl Plank	Naturale Plank 5.0	None	LnTw	☆☆☆☆	46	45			6603-7.1R
Luxury Vinyl Plank	Naturale Plank 5.0	Helix	LnTw	☆☆☆☆				45	7554-1.3R
Luxury Vinyl Plank	Oatlands	Helix	LnTw	☆☆☆☆				45	7554-1.1R

Interpreting These Results

This document provides acoustic information relating to a range of Imagine Floors by Airstep flooring products across various multi-residential and commercial situations. All values are based on tests completed by our partner and are indicative only. All projects should be assessed by the relevant acoustic engineer to ensure suitability and compliance within your application.