

## Technical Summary

### Part 1 : Dimensions

<b>Width</b>	190	mm
<b>Length</b>	1900	mm
<b>Total Thickness</b>	15	mm
<b>Veneer Thickness</b>	3.2 (Brushing effect may reduce total thickness in certain areas, making veneer between 3.0mm - 3.2mm)	mm
<b>Boards Per Box</b>	4	planks
<b>Box Size</b>	1.44	sqm

### Part 2 : General Data

<b>Origin of Timber Veneer</b>	Europe
<b>Janka Hardness</b>	1360 LBF (7.0)
<b>Structure</b>	Oak Veneer + AquaCore + Pine Balancing Layer
<b>Surface Lacquer</b>	<p>Teknos Treffert Parquet Lacquer, 9 - 11 Coats, utilising 6 different types of lacquer:</p> <ul style="list-style-type: none"> <li>◆ WB Stain Base</li> <li>◆ UV PU Insulation Base Coat</li> <li>◆ UV Transparent Sealer Base Coat</li> <li>◆ UV Anti Scratch Sealer Base Coat</li> <li>◆ UV Sealer Low Gloss Base Coat</li> <li>◆ UV Super Matt Top Coat</li> </ul>
<b>Adhesive</b>	Koyok International KOYOBOND®
<b>Edging</b>	Micro-Bevelled Edging
<b>Finish</b>	Matte Brushed (light - medium brushing)

<b>Installation Method</b>	Floating Installation Strip Glue Installation Trowel Glue Installation
<b>Slip Resistance (Wet)</b>	P4 (Reported SRV 45)
<b>Box Weight</b>	26kg
<b>Profile</b>	Micro Bevel
<b>Installation Areas</b>	Residential and Commercial

### Part 3 : Installation

<b>Floated on Underlay</b>	Yes
<b>Trowel Glue</b>	Yes (4 - 6mm trowel)
<b>Strip Glue</b>	Yes
<b>Nailed</b>	No
<b>Underfloor Heating</b>	Yes, suitable with hydronic in-slab heating. Please refer to installation instructions.  <i>Note: Approximate 50% less reduction in effectiveness due to thermally insulating structure of AquaCore.</i>

### Part 4 : Timber Grading Specifications

<b>Timber Grade</b>	ABCD
<b>Moisture Content</b>	Approx. 10%
<b>Colour Variation</b>	Some
<b>Filled Defects</b>	Yes
<b>Sapwood</b>	<1%
<b>Heartwood / Pirth</b>	None or Trace (Too soft and dark for flooring)

<b>Underfloor Heating</b>	Yes <i>Note: 50% less reduction</i>
<b>Filler</b>	Black Epoxy Resin
<b>Maximum Size of Knots</b>	Lighter Colours: ≈< 20mm Diameter Darker Colours: ≈< 40mm Diameter <i>Note: Small variations may</i>
<b>Maximum Size of Holes</b>	<2mm
<b>End Checks</b>	Filled or Removed
<b>Insect Damage</b>	80% Removed, 20% Filled
<b>Ingrown Bark</b>	None

## Part 5 : Warranty

<b>General Residential (Structural)</b>	30	Years
<b>Light Commercial (Structural)</b>	5	Years

## Royal AquaCore Oak Acoustic Testing - 15mm Range

The following testing was commissioned by Royal Floor's to indicate acoustic performance of the AquaCore Flooring installed with a combination of EverQuiet® underlays. Contrix Pty Ltd undertook the testing on 7th February 2025, in compliance with:

- ◆ AS/NZS ISO 140.7:2006, titled "Field measurements of impact sound insulation of floors, and
- ◆ ISO 717.2-2004, titled "Rating of sound insulation in buildings and of building elements"

The testing was conducted in a residential apartment in Hurstville NSW, on a reinforced concrete slab and suspended ceiling cavity. These test reports exist to provide an indication of acoustic performance only, and Royal Floor's cannot guarantee any acoustic outcome due to the variance and individual nature of every building and flooring installation.

## Table of Contents

### Royal AquaCore Oak :

- ◆ Royal AquaCore Oak + 2mm EVERQUIET® Acoustic IXPE Foam
- ◆ Royal AquaCore Oak + 3mm EVERQUIET® Rubber EQ312
- ◆ Royal AquaCore Oak + 5mm EVERQUIET® Rubber EQ512
- ◆ Royal AquaCore Oak + 5mm EVERQUIET® Rubber-Foam EQ515
- ◆ Royal AquaCore Oak + 10mm EVERQUIET® Rubber EQ1012
- ◆ Royal AquaCore Oak + 5mm EVERQUIET® Rubber EQW512
- ◆ Royal AquaCore Oak + 10mm EVERQUIET® Rubber EQW1012















# Royal AquaCore Oak with FLOOR+ MS Adhesive (6mm V-Notch)

System Tested	$L'_{nTw}$ <sup>3</sup>	FIIC <sup>4,5</sup>	AAAC <sup>6</sup>
<b>Bare Concrete Floor (ECFS only) - for comparison purposes only</b>	54	50	3
<b>Royal AquaCore Oak Direct Stick with FLOOR+ MS (6mm V-Notch)</b>	43	67	5

## FIELD MEASUREMENTS OF IMPACT SOUND INSULATION OF FLOORS



Date of Test : Thursday, 11 December 2025  
 Project No. : 3523  
 Testing Company : Koikas Acoustics  
 Checked by : James Tsevrementzis  
 Place of Test : Residential Unit in Forest Lodge (Living/Dining)  
 Client : Everfloor  
 Client Address : -

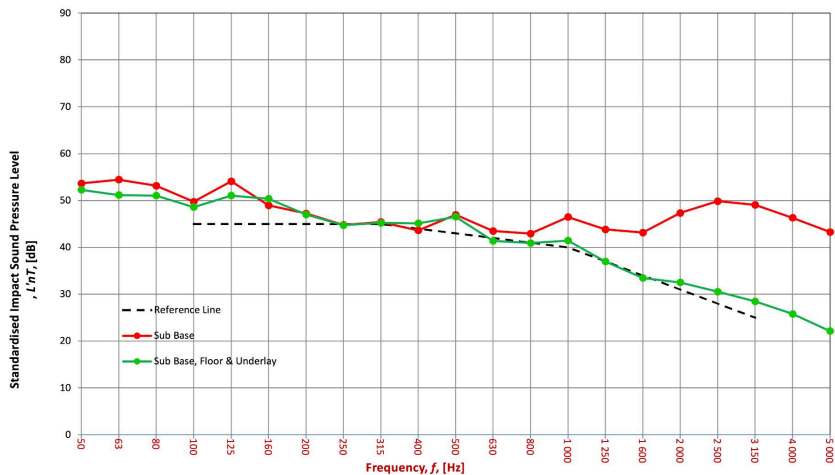
Description	Name	Thickness (mm)	Density (SI)
Hydropro Timber		15	--
FLOOR+ MS Adhesive (V-Notch)		6	--
Concrete Sub Base		--	--
Suspended Plasterboard Ceiling		--	--

Room Width : 4.4 m  
 Floor Length : 8.2 m  
 Dimensions Area : 36.08 m<sup>2</sup>

Sample Width : 1 m  
 Dimensions Length : 1 m  
 Area : 1 m<sup>2</sup>

Receiver Rm	Location	Width	Length	Area	Height	Volume	Room Surfaces		
							Walls	Floor	Ceiling
	Unit below (Living/Dining)	4.4	8.2	36.08	2.7	97.42	Plasterboard	Carpet	Plasterboard

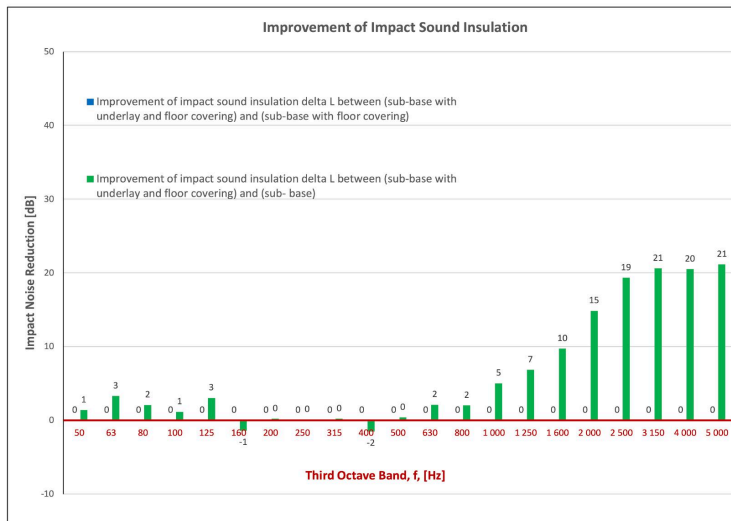
Frequency f [Hz]	L'nT (one-third octave) dB		
	Sub Base	Sub Base Floor	Sub Base Floor Underlay
50	53.7	NA	52.3
63	54.5	NA	51.2
80	53.1	NA	51.1
100	49.7	NA	48.6
125	54.1	NA	51.1
160	49.0	NA	50.4
200	47.2	NA	47.0
250	44.8	NA	44.7
315	45.4	NA	45.2
400	43.6	NA	45.1
500	46.9	NA	46.5
630	43.5	NA	41.4
800	42.9	NA	40.9
1000	46.5	NA	41.5
1250	43.8	NA	37.0
1600	43.2	NA	33.5
2000	47.4	NA	32.5
2500	49.9	NA	30.5
3150	49.1	NA	28.5
4000	46.3	NA	25.8
5000	43.3	NA	22.1



Sub Base		
L'nT,w	54	AS ISO 717.2 - 2004
CI	-9	AS ISO 717.2 - 2004
CI(50-2500)	-7	AS ISO 717.2 - 2004
CI(63-2000)	-8	AS ISO 717.2 - 2004
AAAC★	3 Star	AAAC Guideline
FIIC	50	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	43	AS ISO 717.2 - 2004
CI	-1	AS ISO 717.2 - 2004
CI(50-2500)	2	AS ISO 717.2 - 2004
CI(63-2000)	1	AS ISO 717.2 - 2004
AAAC★	5 Star	AAAC Guideline
FIIC	67	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<sup>2</sup> 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

Please visit [royalfloors.com.au](http://royalfloors.com.au) for the most up-to-date version of warranty, installation, and care and maintenance guidelines. All technical data and testing are based on random sampling and are for indicative purposes only. Version: August 2025