

## PANEL DESCRIPTION / COMPOSITION

## Barestone™ - Lunar

## APPLICATIONS

	Result
Applications	Facades and Cladding, Internal Linings, Eaves, Ceilings and Soffits
Type of Building Structure	Residential Housing Buildings within the scope of AS4055, Commercial & Other
Wet Areas	No

## PANEL - DIMENSIONAL &amp; GEOMETRICAL CHARACTERISTICS

Dimensional/Geometrical Characteristic	Specification	Manufacturing Tolerance	Relevant Standard
Panel Dimensions	1200mmW x 2400mmL x gmmD (special order for Ash, Lunar and Graphite) 1200mmW x 3000mmL x gmmD	Width +0.0mm / -2.0mm Length +0.0mm / -2.0mm Thickness +0.9mm / -0.0mm	
Profile	Square Edge		
Perpendicularity/squareness of edges	1mm/linear meter	(+2.0mm / 0.0mm)	
Weight (typical)	17.8kg/m <sup>2</sup>		
Layout Options	Horizontal, Vertical, Diagonal		
Jointing	Expressed		

## PANEL - STRENGTH &amp; MOISTURE RELATED PROPERTIES

Physical Property	Result	Relevant Standard
Modulus of Rupture (Wet)	>18MPa	AS/NZS 2908.2
Modulus of Elasticity (Wet)	9-13GPa	
Density (Oven Dry)	1625 kg/m <sup>3</sup>	AS/NZS 2908.2
Water Vapor Diffusion	Not Required	Not Required
Water Tightness (24hrs)	No water droplet	AS/NZS 2908.2
Water Absorption (Saturated - 48hrs)	18 wt%	ASTM C 1186
Moisture Content (EMC)	7 Wt %	ASTM C 1186

Physical Property	Result	Relevant Standard
Moisture Movement	0.04%	ASTM C 1186

## PANEL - OTHER DURABILITY/WEATHER RESISTANCE INDICATORS

Test	Result	Relevant Standard
Heat Rain	PASSED (25 Cycles)	AS/NZS 2908.2
Freeze Thaw	PASSED (50 Cycles)	AS/NZS 2908.2
Warm Water Resistance	PASSED (56 days)	AS/NZS 2908.2
Soak Dry	PASSED (25 Cycles)	AS/NZS 2908.2

## PANEL - FINISH CHARACTERISTICS

Characteristic	Result	Relevant Standard
Finish	Prefinished	
Coating Type	Barestone Original External: Silane (Water Repellent) Barestone Internal: Acrylic Barestone Colours External: Silane + Acrylic	
Colour Bodied	No - Barestone Original Yes - Barestone Colours	
Paint Type		
UV Resistance	Yes	N/A
Formaldehyde Emission Rate	N/A	ASTM D5116
VOC Emission Rate	N/A	ASTM D5116

Spectral Reflectivity Values	Solar Reflectance %	Solar Absorption %	Basix Colour	Relevant Standard
Barestone Lunar	14.3	85.7 (+/-0.4)	Dark	ASTM E903-96

## PANEL - FIRE RESISTANCE, THERMAL & ACCOUSTIC PROPERTIES

Characteristic	Result	Relevant Standard
<b>FIRE RESISTANCE</b>		
Combustibility	Suitable for use in applications where non-combustible materials are specified by the Deemed to Satisfy Provisions of the NCC 2022 C2D10 [2019: C1.9]	
Fire Hazard Properties	Group Number 1 SMOGRARC $\leq$ 0.2 (m2.s2 x 1000)	
Classification		
<b>THERMAL CONDUCTIVITY</b>		
Thermal Conductivity ( $\lambda$ -Factor)	0.4108 W/m.K. $\pm$ 4%	ASTM C 518-10

Characteristic	Result	Relevant Standard
Thermal Expansion Co-efficient	0.005-0.01mm/mK	N/A
<b>ACOUSTIC VALUE</b>		
Sound reduction (depends on construction)	N/A	N/A

## SYSTEM SOLUTIONS

(EXTERNAL) Characteristic	Result	Relevant Standard
Within Scope of AS4055?	Yes	
Wind Loading - Residential housing buildings within the scope of AS4055	N1, N2, N3, N4, N5, N6, C1, C2, C3, C4	
Weatherproofing	Assessed for serviceability loads to 2.5kPa	AS/NZS 4284
Cyclonic Conditions	Tested and assessed to 7.0 kPa	AS 4040.3
Fire Resistance Limits (FRLs)	Up to 120/120/120 & -/180/180	Refer to The Red Book™ 1 – Design Guide
Bushfire Construction	BAL-40 (Construction for Bushfire Attack Level 40 for an external wall)	AS 3959-8
Acoustic	Acoustic solutions of up to RW/RW+CTR 56/47dB are detailed	Refer to The Red Book™ 1 – Design Guide
Thermal	Thermal solutions of up to RT(sum) /RT(win) 3.5/3.8m <sup>2</sup> .K/W are detailed	Refer to The Red Book™ 1 – Design Guide

## FIXING

Characteristic	
Maximum Span (Stud Spacing)	Up to 600mm
<b>DIRECT FIX</b>	
Nail to Timber Frame	No
Screw to Timber Frame	No
Screw to Steel Frame	No
Screw to Timber Battens	Yes
<b>CAVITY FIX</b>	
Timber Frame	Yes
Steel Frame	Yes
Masonry Wall	Yes (refer to Designlink for custom solution)
<b>EXPOSED FASTENERS</b>	
Screw	Yes

Characteristic	
Rivet	Yes
Nail	No
CONCEALED FASTENERS (INTERNAL USE ONLY)	
Clip	No
Countersunk Screw/Nail	No
Adhesive, Split Batten, etc.	Yes
Hidden by Overlapping Panel	No
Flush Jointed (Taped)	No

WARRANTY 10 YEARS

August 29, 2023