

PANEL DESCRIPTION / COMPOSITION

Barestone™ - External

APPLICATIONS

	Result
Applications	Façades & Cladding
Type of Building Structure	Residential Housing Buildings within the scope of AS4055, Commercial & Other
Wet Areas	No

PANEL - DIMENSIONAL & GEOMETRICAL CHARACTERISTICS

Dimensional/Geometrical Characteristic	Specification	Manufacturing Tolerance	Relevant Standard
Panel Dimensions	1200mmW x 2400mmL x gmmD 1200mmW x 3000mmL x gmmD	Width +0 -2 mm Length +0 -2 mm Thickness +10% -0 mm	
Profile	Square Edge		
Perpendicularity/squareness of edges	1mm/linear meter		
Weight (typical)	17.8kg/m ²		
Layout Options	Horizontal, Vertical, Diagonal/Al, Curved		
Jointing	Expressed		

PANEL - STRENGTH & MOISTURE RELATED PROPERTIES

Physical Property	Result	Relevant Standard
Modulus of Rupture (Wet)	>18MPa	AS2908.2
Modulus of Elasticity (Wet)	9-13GPa	AS2908.2
Density (Oven Dry)	1625 kg/m ³	AS2908.2
Water Vapor Diffusion	Not Required	Not Required
Water Tightness (24hrs)	No water droplet	AS2908.2
Water Absorption (Saturated - 48hrs)	18 wt%	ASTM C 1186
Moisture Content (EMC)	7 Wt %	ASTM C 1186
Moisture Movement	0.04%	ASTM C 1186

PANEL - OTHER DURABILITY/WEATHER RESISTANCE INDICATORS

Test	Result	Relevant Standard
Heat Rain	PASSED (25 Cycles)	AS2908.2
Freeze Thaw	PASSED (50 Cycles)	AS2908.2
Warm Water Resistance	PASSED (56 days)	AS2908.2
Soak Dry	PASSED (25 Cycles)	AS2908.2

PANEL - FINISH CHARACTERISTICS

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

Spectral Reflectivity Values	Solar Reflectance %	Solar Absorption %	Basix Colour	Relevant Standard
External Original	39.8	60.2	Medium	ASTM E903-12

PANEL - FIRE RESISTANCE, THERMAL & ACCOUSTIC PROPERTIES

Characteristic	Result	Relevant Standard
FIRE RESISTANCE		
Combustibility	Suitable for use in applications where non-combustible materials are specified by the Deemed to Satisfy Provisions of the BCA Vol 1 Clause C1.9	
Fire Hazard Properties	Group Number 1 SMOGRARC <100 Standard AS5637.1	AS 5637.1
Classification		
THERMAL CONDUCTIVITY		
Thermal Conductivity (λ -Factor)	≈ 0.4108 W/m.K.	
Thermal Expansion Co-efficient	0.005-0.01mm/mK	N/A
ACOUSTIC VALUE		
Sound reduction (depends on construction)	N/A	N/A

SYSTEM SOLUTIONS

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 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 56/47 are detailed	Refer to The Red Book™ 1 – Design Guide
Thermal	Thermal solutions of up to RT(sum)/RT(win) 3.5/3.8 are detailed	Refer to The Red Book™ 1 – Design Guide

FIXING

Characteristic	
Maximum Span (Stud Spacing)	Up to 600mm
DIRECT FIX	
Nail to Timber Frame	No
Screw to Timber Frame	No
Screw to Steel Frame	No
CAVITY FIX	
Timber Frame	Yes
Steel Frame	Yes
Masonry Frame	Yes
EXPOSED FASTENERS	
Screw	Yes
Rivet	Yes
Nail	No
CONCEALED FASTENERS	
Clip	No
Countersunk Screw/Nail	No
Adhesive, Split Batten, etc.	No
Hidden by Overlapping Panel	No
Flush Jointed (Taped)	No

