

CEMINTEL®

Fire Performance of
Cemintel Barestone® External Panels



COMPLIANCE FOR NON-COMBUSTIBLE MATERIALS BARESTONE® EXTERNAL – FEBRUARY 2020

Cemintel® is an Australian company and part of the iconic CSR Building Products Pty Ltd, manufacturing and supplying cement panels and building systems used for external facades, internal linings, ceilings and flooring in commercial and residential applications.

The following information is provided in regards to Cemintel Barestone® and its non-combustible attributes:

- Cemintel Barestone® is made from cement, sand, cellulose fibre and water.
- Cemintel Barestone® is autoclaved to cure under heat and pressure.
- Cemintel Barestone® is manufactured and tested in accordance with Australian and New Zealand Standard for cellulose-cement flat sheet product AS/NZS 2908.2
- In accordance with the standard characteristic type tests required by AS/NZS 2908.2:2000, Cemintel Barestone® has a classification of Type A Category 5 (fibre cement) sheet.
- Cemintel Barestone® may be used where non-combustible materials are required by the Building Code of Australia (BCA 2019) and according to the National Construction Code (NCC) Volume 1 Section C1.9 and Volume 2 Section 3.7.1.2.
- Cemintel fibre cement products have been assessed by Warringtonfire (WFRA 45759) in accordance with AS/NZS 3837 ('Method test for heat and smoke release for materials and products using an oxygen consumption calorimeter') and have been classified to conform to Group 1 (high and best result possible) with an average specific extinction area far lower than the permissible 250m²/kg, as referenced in specification C1.10 of the BCA 2019.

For further information on Cemintel Barestone, please refer to Compliance Certificate and Certificate of Physical Properties attached.

COMPLIANCE CERTIFICATE

BARESTONE® EXTERNAL – FEBRUARY 2020

Barestone panels are manufactured in Australia to AS/NZS 2908.2:2000 and are classified as Type A Grade 5 (fibre cement) sheet.

Characteristic Type Tests have been conducted for Barestone in accordance with AS/NZS 2908.2:2000 including:

- Bending Strength
- Water Permeability
- Frost Resistance (Freeze - Thaw test)
- Warm Water
- Heat - Rain
- Soak - Dry
- Dimensional and Geometrical Characteristics
- Apparent Density

These tests have been conducted by Cemintel's Research & Development Technical Team. Detailed Technical Specifications for Barestone can be downloaded at www.cemintel.com.au/technical/technical-data-sheets/

CERTIFICATE OF PHYSICAL PROPERTIES

BARESTONE® EXTERNAL – FEBRUARY 2020

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

CERTIFICATE OF PHYSICAL PROPERTIES BARESTONE® EXTERNAL – FEBRUARY 2020

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 – FIRE RESISTANCE, THERMAL & ACOUSTIC PROPERTIES		
Characteristic	Result	Relevant Standard
FIRE RESISTANCE		
Combustibility	Assessed as suitable for use in applications where non-combustible materials are specified by the Deemed to Satisfy Provisions.	
Group Number	1	AS/NZ 3837
Average Specific Extinction Area	<250	AS/NZ 3837
E.F.H.I	Ignitability index = 0 Flame spread index = 0 Heat evolved index = 0 Smoke developed = 1	AS/NZS 1530.3
THERMAL CONDUCTIVITY		
Thermal Conductivity (λ -Factor)	≈ 0.4108 W/m.K.	
Thermal Expansion Co-efficient	0.005-0.01mm/mK	N/A

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