

## PANEL DESCRIPTION / COMPOSITION

## Surround™

CEMINTEL SURROUND™ PANELS ARE PREFINISHED FIBRE CEMENT PANELS THAT ARE COLOURED THROUGHOUT WITH A TRANSPARENT COATING (MARL) OR OPAQUE COATING (BASE, STRING, LEATHER, METAL) WHICH RESULTS IN A MORE NATURAL APPEARANCE AND DEPTH OF COLOUR THAN CAN BE ACHIEVED WITH A STANDARD SURFACE PAINTED FINISH.

Consisting primarily of Portland Cement, wood pulp, reinforcement fibres, air and water, panels have undergone a longer, natural air curing process and offer superior performance in terms of strength, density and durability. Available in a range of colours, textures & finishes, these square edged panels are manufactured in Europe under EN 12467 (fibre cement flat sheets) and are classified as Category A (for weather resistance), Class 4 (mechanical properties).

### APPLICATIONS

	Result
Applications	Façades & Cladding, Internal Linings
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 Width	1200mm	+/- 1.5mm	
Panel Length	3000mm	+/- 1.5mm	
Panel Thickness	8mm	+/- 0.8mm	
Profile	Square Edge		
Perpendicularity/squareness of edges		<1mm/m	
Weight (typical)	15.7kg/m <sup>2</sup> Based on dry weight		
Layout Options	Horizontal, Vertical, Curved (refer to Designlink for custom solution)		
Jointing	Expressed		

Trimmed & Sealed. Lengths up to 3050mm are available as special orders.

#### PANEL - STRENGTH & MOISTURE RELATED PROPERTIES

Physical Property	Result	Relevant Standard
Modulus of Rupture (Wet)	> 18 Mpa	EN 12467
Modulus of Elasticity (Wet)	13 Gpa	EN 12467
Density (Oven Dry)	1750Kg/m <sup>3</sup> (typical value)	EN 12467
Water Vapor Diffusion	400	EN 12572
Water Tightness (24hrs)	No water droplet	EN 12467
Water Absorption (Saturated – 48hrs)	< 15% (typical value)	ASTM C 1186
Moisture Content (EMC)	< 8%	EN 12467
Moisture Movement	< 0.15%	EN 12467

NB/ The above test results relate to coated panels unless otherwise specified (ie edges are sealed for testing to reflect the characteristic of sheets as delivered & in accordance with installation instructions).

#### PANEL - OTHER DURABILITY/WEATHER RESISTANCE INDICATORS

Test	Result	Relevant Standard
Heat Rain	PASSED (50 Cycles)	EN 12467
Freeze Thaw	PASSED (100 Cycles)	EN 12467
Warm Water Resistance	PASSED (56 days)	EN12467
Soak Dry	PASSED (50 Cycles)	EN 12467

#### PANEL - FINISH CHARACTERISTICS

Characteristic	Result	Relevant Standard
Finish	Prefinished	
Coating Type	Polyacrylic	
Colour Bodied	Yes	
Paint Type		
UV Resistance	Colour Constancy to remain within 8.0 Delta E units compared to agreed prototype over 10 year warranty period	N/A
Formaldehyde Emission Rate		
VOC Emission Rate		

Spectral Reflectivity Values	Solar Reflectance %	Solar Absorption %	Basix Colour	Relevant Standard
Whiteish Base	67.9	32.1 (+/-2.0)	Light	ASTME 903-12
Whiteish String	67.9	32.1 (+/-2.0)	Light	ASTM E 903-12
Whiteish Leather	67.9	32.1 (+/-2.0)	Light	ASTM E 903-12
Whiteish Metal (Special Order*)				
Whiteish Marl (Special Order*)				
Greyish Base	31.9	64.1 (+/-1.1)	Medium	ASTM E 903-12
Greyish String	31.9	64.1 (+/- 1.1)	Medium	ASTM E 903-12
Greyish Leather	31.9	64.1 (+/- 1.1)	Medium	ASTM E 903-12
Greyish Metal (Special Order*)				
Greyish Marl (Special Order*)				
Greenish Base	19.6	80.4 (+/- 0.6)	Dark	ASTM E 903-12
Greenish String	19.6	80.4 (+/- 0.6)	Dark	ASTM E 903-12
Greenish Leather	19.6	80.4 (+/- 0.6)	Dark	ASTM E 903-12
Greenish Metal (Special Order*)				
Greenish Marl (Special Order*)				
Blueish Base	21.5	78.5 (+/- 0.6)	Dark	ASTM E 903-12
Blueish String	21.5	78.5 (+/- 0.6)	Dark	ASTM E 903-12
Blueish Leather	21.5	78.5 (+/- 0.6)	Dark	ASTM E 903-12
Blueish Metal (Special Order*)				
Blueish Marl (Special Order*)				
Blackish Base	16.1	83.9 (+/-0.5)	Dark	ASTM E 903-12
Blackish String	16.1	83.9 (+/- 0.5)	Dark	ASTM E 903-12
Blackish Leather	16.1	83.9 (+/- 0.5)	Dark	ASTM E 903-12
Blackish Metal (Special Order*)				
Blackish Marl (Special Order*)				
Secondary Palette 4RY1-W (Special Order*)				
Secondary Palette 3RY1-W (Special Order*)				
Secondary Palette 2RY1-W (Special Order*)				
Secondary Palette 1YG1-W (Special				

Order\*)

Secondary Palette 2YR1-W (Special Order\*)

Secondary Palette 3YG1-W (Special Order\*)

Secondary Palette 4GY1-W (Special Order\*)

Secondary Palette 3GY1-W (Special Order\*)

Secondary Palette 1GY1-W (Special Order\*)

Secondary Palette 4BG1-C (Special Order\*)

Secondary Palette 2BR1-C (Special Order\*)

Secondary Palette 1BG1-C (Special Order\*)

## PANEL - FIRE RESISTANCE, THERMAL & ACOUSTIC 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 2016 BCA Vol 1 Amendment 1 Clause C1.9 (2015 BCA Vol Clause C1.12)	
Fire Hazard Properties	Group 1 Av Specific Extinction Area <250	AS/NZ 3837
Classification	1	AS/NZ 3837
Surface Burning Characteristics	Ignitability index = 0, Spread of flame index = 0, Heat evolved index = 0, Smoke developed index = 2 (Black), 3 (White)	AS1530.3
THERMAL CONDUCTIVITY		
Thermal Conductivity ( $\lambda$ -Factor)	$\approx 0.5 - 1.0$ W/mK	N/A
Thermal Expansion Co-efficient	0.01mm/mK	N/A
ACOUSTIC VALUE		
Sound	$\approx 3 - 5$ dB	EN

## 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	Has passed testing at a serviceability wind pressure of +2.5kPa and -2.7kPa and an ultimate wind pressure of +7kPa and -7kPa	AS 4284
Cyclonic Conditions	Has passed testing at 7kpa	AS 4040.3
Fire Resistance Limits (FRLs)	Up to 120/120/120 & -/180/180	Refer to Gyprock® The Red Book™
Bushfire Construction	BAL 29 (Construction for Bushfire Attack Level 29 for an external wall)	AS 3959-8
Acoustic	Acoustic solutions of up to RW/RW+CTR 56/47 are detailed	Refer to Gyprock® The Red Book™
Thermal	Thermal solutions of up to RT(sum)/RT(win) 3.5/3.8 are detailed	Refer to Gyprock® The Red Book™

## 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
INDIRECT FIX	
Timber Frame	Yes
Steel Frame	Yes
Masonry Frame	Yes

## EXPOSED FASTENERS

Screw	No
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

WARRANTY

10 YEARS

May 20, 2019

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