

TECHNICAL DATA SHEET | SURROUND™

Surround panels are colour-bodied and come trimmed and sealed. They can be installed horizontally or vertically using the Cemintel ExpressWall® Top Hat framing system.

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, 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	1200 mm	+/- 1.5 mm	
Panel Length	3000 mm	+/- 1.5 mm	
Panel Thickness	8 mm	+/- 0.8 mm	
Profile	Square Edge		
Perpendicularity/Squareness of Edges		<1 mm/m	
Weight (typical)	15.7 kg/m ² Based on dry weight		
Layout Options	Horizontal, Vertical, Curved (refer to Designlink for custom solution)		
Jointing	Expressed		

Trimmed & Sealed. Lengths up to 3050 mm 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)	1750 kg/m ³ (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)	EN 12467
Soak Dry	PASSED (50 cycles)	EN 12467

PANEL – FINISH CHARACTERISTICS

CHARACTERISTIC	RESULTS	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	ASTM E903-12
Blackish Base	16.1	83.9 (+/-0.5)	Dark	ASTM E903-12
Greyish Base	31.9	64.1 (+/-1.1)	Medium	ASTM E903-12
Blueish Base	21.5	78.5 (+/- 0.6)	Dark	ASTM E903-12
Blackout	6.6	93.4 (+/- 0.6)	Dark	ASTM E903-12
Greenback	33.7	66.3 (+/- 1.0)	Medium	ASTM E903-12
Hover	7.8	92.2 (+/- 0.6)	Dark	ASTM E903-12
Husk	41.5	58.5 (+/- 1.2)	Medium	ASTM E903-12
Mainland	38.4	61.6 (+/- 1.2)	Medium	ASTM E903-12
Maya	52.3	47.7 (+/- 1.6)	Light/Medium	ASTM E903-12
Quinta	42.0	58.0 (+/- 1.3)	Medium	ASTM E903-12
Truss Grey	10.7	89.3 (+/- 0.6)	Dark	ASTM E903-12

PANEL – FIRE RESISTANCE, THERMAL & ACOUSTIC PROPERTIES

CHARACTERISTIC	RESULTS	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 5637.1
Classification	1	AS/NZ 3837
Thermal Conductivity		
Thermal Conductivity (λ-Factor)	≈ 0.5-1.0 W/mK	N/A
Thermal Expansion Co-efficient	0.01 mm/mK	N/A
Acoustic Value		
Sound reduction (depends on construction)	≈ 3-5 dB	EN 12467

SYSTEM SOLUTIONS		
CHARACTERISTIC	RESULTS	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 +2.5 kPa and -2.7 kPa and an ultimate wind pressure of +7 kPa and -7 kPa	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	RESULTS
Maximum Span (Stud Spacing)	Up to 600 mm
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	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