

PANEL DESCRIPTION / COMPOSITION

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).

SURROUND™

PANEL - DIMENSIONAL & GEOMETRICAL CHARACTERISTICS

Dimensional/Geometrical Characteristic	Specification (trimmed panel)*	Manufacturing Tolerance
Panel Width	1200mm	+/- 1.5mm
Panel Length	3000mm	+/- 1.5mm
Panel Thickness	8mm	+/- 0.8mm
Perpendicularity / Squareness of Edges		<1mm/m
Mass (EMC)	15.7kg/m ²	

*Manufactured size is 1250x3070x8 however trimming is required to ensure dimensional accuracy & consistency. Lengths up to 3050mm are available as special orders.

PANEL - STRENGTH & MOISTURE RELATED PROPERTIES

Physical Property	Result	Relevant Standard
Modulus of Rupture (Wet)	>18Mpa	EN 12467
Modulus of Elasticity (Wet)	13GPa	EN 12467
Density (Oven Dry)	1750kg/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 (50 Cycles)	PASSED	EN 12467
Freeze Thaw (100 Cycles)	PASSED	EN 12467
Warm Water Resistance (56 days)	PASSED	EN 12467
Soak Dry (50 cycles)	PASSED	EN 12467

PANEL - FINISH CHARACTERISTICS

Characteristic	Results	Relevant Standard
Coating Type	Polyacrylic	
UV Resistance	Colour Constancy to remain within 2.0 Delta E units compared to agreed prototype over 10 year warranty period	
SPECTRAL REFLECTIVITY VALUES	SOLAR REFLECTANCE %	SOLAR ABSORPTION %
Surround Whiteish	68.4	31.6 (+/- 2.1)
Surround Blackish	6.7	93.3 (+/- 0.2)
		BASIX COLOUR
		Light
		Dark
		ASTME 903-12
		ASTME 903-12

PANEL - FIRE RESISTANCE, THERMAL & ACCOUSTIC PROPERTIES

Characteristic	Results	Relevant Standard
FIRE RESISTANCE		
Fire Hazard Properties	Group 1 Av Specific Extinction Area <250	AS/NZ 3837
Classification	Class A2-S1 d0 (Class A1-S1 d0 uncoated)	EN 13501-1
Surface Burning Characteristics	Flame spread index = 0 Smoke developed = 0	ASTM E-84
THERMAL CONDUCTIVITY		
Thermal Conductivity (λ-Factor)	≈ 0.5-1.0W/mK	
Thermal Expansion Co-efficient	0.01mm/mK	
ACCOUSTIC VALUE		
Sound reduction (depends on construction)	≈ 3-5 dB	EN 12467

SYSTEM SOLUTIONS

Characteristic	Results	Relevant Standard
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	Accoustic 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™

The above information is provided to assist designers. It is based on information provided by manufacturers & test results conducted by or on behalf of CSR Cemintel and other CSR companies. Information may change from time to time so refer to Cemintel website for latest version of Technical Data Sheet. For design and technical support contact CSR Designlink on 1800 621 117.

For Further Information (including SDS) visit the Cemintel website cemintel.com.au or phone 1300 236 468.