

## PANEL DESCRIPTION / COMPOSITION

Territory™

CEMINTEL TERRITORY™ PANELS ARE CEMENT BONDED FIBROUS WOOD PARTICLE CLADDING PRODUCTS THAT ARE PRESSED WITH SURFACE TEXTURE AND PREFINISHED USING A DURABLE MULTI-LAYER PAINT PROCESS TO ACHIEVE A RANGE OF TEXTURES, FINISHES AND DESIGNS. THE LONG HORIZONTAL EDGE OF THE PANEL IS MACHINED WITH A COMPLEMENTARY TONGUE AND GROOVE PROFILE AND A COMPRESSIBLE SEALING STRIP IS BONDED ONTO THE TONGUE WHICH ENABLES THE PANELS TO FIT NEATLY TOGETHER TO FORM A WEATHER RESISTANT JOINT.

Cemintel Territory panels are manufactured in Japan to the Japanese Industrial Standard JIS A 5422 (fibre reinforced cement sidings) and are classified as a Type A, Grade 2 (fibre cement) sheet in accordance with ASTM C1186.

## 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	470mm (overall width), 455mm (effective cover)	+/- 1mm	JIS A 5422
Panel Length	3030mm	+/- 1mm	JIS A 5422
Panel Thickness	16mm	+/- 1.2mm	JIS A 5422
Profile	Tongue & Groove		
Perpendicularity/squareness of edges			
Weight (typical)	17.9 - 21.8kg/m <sup>2</sup> Based on dry weight. 24.6kg to 30kg per sheet (or 17.9 to 21.8kg per m <sup>2</sup> ) depending on sheet design (NB 2		

x panels per pack)

Layout Options	Horizontal, Vertical (NB not all panels have matching preformed vertical corners - check Design and Installation Guide for details)
Jointing	Concealed

#### PANEL - STRENGTH & MOISTURE RELATED PROPERTIES

Physical Property	Result	Relevant Standard
Modulus of Rupture (Wet)	> 7 Mpa	ASTM C 1186
Modulus of Elasticity (Wet)	2.2 - 3.35 Gpa	EN 12467
Density (Oven Dry)	1191Kg/m <sup>3</sup> (average)	ASTM C 1186
Water Vapor Diffusion		
Water Tightness (24hrs)	No water droplet	ASTM C 1186
Water Absorption (Saturated - 48hrs)	13.9% (average)	ASTM C 1186
Moisture Content (EMC)	7-9%	ASTM C 1186
Moisture Movement	0.07% (average)	ASTM C 1186

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). In-house testing as per ASTM C 1186.

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

Test	Result	Relevant Standard
Heat Rain	PASSED (25 Cycles)	ASTM C 1186
Freeze Thaw	PASSED (50 Cycles)	ASTM C 1186
Warm Water Resistance	PASSED (56 days)	ASTM C 1186
Soak Dry	PASSED (50 Cycles)	EN 12467

#### PANEL - FINISH CHARACTERISTICS

Characteristic	Result	Relevant Standard
Finish	Prefinished	
Coating Type	Nichiguard Coating - applied to all panels with the exception of Savanna Mist and Savanna Shade. Provides an anti-staining, self cleaning function. Silica particles in the coating attract water from the atmosphere to form a thin molecular film, so that airborne contaminants do not reach the panel surface itself. Rain water that runs down the wall washes contaminants away. (Platinum Coating)	
Colour Bodied	No	

Paint Type	Silicon Acrylic Emulsion	
UV Resistance	N/A	N/A
Formaldehyde Emission Rate	Meets Green Building Council Office Design IEQ-14 Requirements for <0.1mg/m <sup>2</sup> /hr* *Refers to results obtained for Woodlands Teak	ASTM D5116
VOC Emission Rate	Meets Green Building Council Office Design IEQ-14 Requirements for <0.5mg/m <sup>2</sup> /hr* *Refers to results obtained for Woodlands Teak	ASTM D5116

Spectral Reflectivity Values	Solar Reflectance %	Solar Absorption %	Basix Colour	Relevant Standard
Canyon Ripple	46.4	53.6 ±1.4	Medium	ASTME 903-12
Quarry Urban Grey	36.7	63.3 ±1.9	Medium	ASTME 903-12
Quarry Concrete	35.6	64.4 ±1.1	Medium	ASTME 903-12
Riverbed Silt	34.0	66.0 ±1.0	Medium	ASTME 903-12
Riverbed Sand	53.5	46.5 ±1.6	Medium	ASTME 903-12
Riverbed Pebble	9.1	90.9 ±0.6	Dark	ASTME 903-12
Savanna Cloud	54.4	45.6 ±1.6	Light	ASTME 903-12
Savanna Mist	23.8	76.2 ±0.7	Dark	ASTME 903-12
Savanna Shade	16.8	83.2 ±0.5	Dark	ASTME 903-12
Savanna Haze	28.1	71.9 ±0.8	Dark	ASTME 903-12
Steppe Tundra	22.9	77.1 ±0.7	Dark	ASTME 903-12
Steppe Montane	6.1	93.9 ±0.6	Dark	ASTME 903-12
Steppe Alpine	63.9	36.1 ±1.9	Light	ASTME 903-12
Woodlands Teak	17.2	82.8 ±0.5	Dark	ASTME 903-12
Woodlands Smoked	8.5	91.5 ±0.3	Dark	ASTME 903-12
Woodlands Limed	51.5	48.5 ±1.5	Light/Medium	ASTME 903-12
Woodlands Whitewash	23.8	76.2 ±0.7	Dark	ASTME 903-12
Woodlands Ebony	7.7	92.3 ±0.6	Dark	ASTME 903-12

## PANEL - FIRE RESISTANCE, THERMAL & ACOUSTIC PROPERTIES

Characteristic	Result	Relevant Standard
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### FIRE RESISTANCE

Combustibility Suitable for use in applications where non-combustible materials are

Fire Hazard Properties	Group 1 Av Specific Extinction Area <250	AS/NZ 3837
Classification	1	AS/NZ 3837
Surface Burning Characteristics	Flame spread index = 0; Smoke developed = 0	ASTM E84
<b>THERMAL CONDUCTIVITY</b>		
Thermal Conductivity ( $\lambda$ -Factor)	0.26 W/mk (average)	JIS A 1412
Thermal Expansion Co-efficient		N/A
<b>ACOUSTIC VALUE</b>		
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 (horizontal), N6 (horizontal), C1, C2, C3 (horizontal), C4 (horizontal steel frame only)	
Weatherproofing	When installed horizontally - has passed testing at a serviceability wind pressure of +3.72kPa and -3.72kPa, and an ultimate wind pressure of +6kPa and -6kPa. When installed vertically - has passed testing at a serviceability wind pressure of +1.6kPa and -2.2kPa, and an ultimate wind pressure of +2.6kPa and -3.3kPa.	AS 4284
Cyclonic Conditions	Horizontal installation/ tested which passed at 4.5kPa (using long clip) and 2.7kPa (using short clip).	AS 4040.3
Fire Resistance Limits (FRLs)	Up to 90/90/90	Refer to Gyprock® The Red Book™
Bushfire Construction	BAL 40 (Construction for Bushfire Attack Level 40 for an external wall)	AS 1530.8.1
Acoustic	Acoustic solutions of up to RW/RW+CTR 52/43 are	Refer to

Thermal	Thermal solutions of up to RT(sum)/RT(win) 2.8/3 are detailed	Refer to Gyprock® The Red Book™
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**FIXING**

## Characteristic

Maximum Span (Stud Spacing)	Up to 600mm
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## DIRECT FIX

Nail to Timber Frame	No
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Screw to Timber Frame	No
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Screw to Steel Frame	No
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## INDIRECT FIX

Timber Frame	Yes
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Steel Frame	Yes
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Masonry Frame	Yes
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## EXPOSED FASTENERS

Screw	Yes (limited)
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Rivet	No
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Nail	Yes (limited)
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## CONCEALED FASTENERS

Clip	Yes
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Countersunk Screw/Nail	No
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Adhesive, Split Batten, etc.	No
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Hidden by Overlapping Panel	No
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Flush Jointed (Taped)	No
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**WARRANTY****10 YEARS**

February 23, 2019