



FAIRVIEW™

DEFINING ARCHITECTURE SINCE 1983



vitrashield NC™

A1 MINERAL CLADDING / MANUFACTURED BY FAIRVIEW

PRODUCT INFORMATION

ABOUT VITRASHIELD NC™

Vitrashield NC™ is a non-combustible cored aluminium composite panel distributed by Fairview. The core has been engineered to achieve non-combustibility as well as a practical level of workability. Vitrashield NC™ has a high degree of surface flatness and thermal stability.

KEY BENEFITS

- Non-combustible core
- Highly rigid and flat
- Relatively low cost fabrication
- Extremely durable
- Resistant to extreme weather
- Wide Range of colours & finishes
- Up to 20 years warranty
- Certified and Tested



TECHNICAL DATA SHEET

PHYSICAL PROPERTIES

	TEST STANDARD	TOLERANCE	RESULT
Panel Thickness	Calibrated Caliper	(±) 0.2 mm	4.0 mm
Weight of the Panel	Calibrated weighing device	± 0.5 kg/m ²	8.0kg/m ²
Standard Width	...	(±) 2 mm	1000, 1250, 1500, up to 2000mm
Length	...	(±) 2 mm	up to 6000 mm Max. 8000mm
Skin Thickness (Top / Bottom)	Caliper	(±) 0.02 mm	0.50 mm

FIRE PERFORMANCE

	TEST STANDARD	REQUIREMENT	RESULT / CERTIFICATE REF. NO.
Reaction to Fire Classification	EN 13501-1	Class A1	TBW0300647
Self Ignition Temperature (CORE)	ASTM D 1929	Not less than 343°C	SIT: > 750°C FIT: >750°C
Self Ignition Temperature (ACP)	ASTM D 1929	Not less than 343°C	SIT: > 525°C FIT: >524°C
Exterior Wall Cladding System	NFPA 285	Pass as per standard	TBW0300672
Roof Covering Assembly with Mineral Wool Insulation (45-70° from the horizontal plane)	EN 13501-5	B ROOF (t4)	TBW0300736 With thermal insulation fixed direct at rear face of ACP, on Alum structure with 300mm Void ideal for Continuous Roof Covering.
Roof Covering Assembly (0-10° from the horizontal plane)	EN 13501-5	B ROOF (t4)	TBW0300737 without any packing material on Alum structure with 300mm Void ideal for canopies and feature.

Methods for Fire Tests on Building Materials, Components and Structures – Parts 1 and 3

		AS/NZS 1530.3	Range 0-20	0
Plain Panel	Ignitability Index	AS/NZS 1530.3	Range 0-10	0
	Spread of Flame Index	AS/NZS 1530.3	Range 0-10	0
	Heat Evolved Index	AS/NZS 1530.3	Range 0-10	0
	Smoke Developed Index	AS/NZS 1530.3	Range 0-10	0-1
Panel with 20mm x 20mm Hole	Ignitability Index	AS/NZS 1530.3	Range 0-10	0
	Spread of Flame Index	AS/NZS 1530.3	Range 0-10	0
	Heat Evolved Index	AS/NZS 1530.3	Range 0-10	0
	Smoke Developed Index	AS/NZS 1530.3	Range 0-10	4
Panel with 200mm x 200mm Hole	Ignitability Index	AS/NZS 1530.3	Range 0-10	0
	Spread of Flame Index	AS/NZS 1530.3	Range 0-10	0
	Heat Evolved Index	AS/NZS 1530.3	Range 0-10	0
	Smoke Developed Index	AS/NZS 1530.3	Range 0-10	0-1
Panel with Silicone Joint Sealant	Ignitability Index	AS/NZS 1530.3	Range 0-10	10
	Spread of Flame Index	AS/NZS 1530.3	Range 0-10	0
	Heat Evolved Index	AS/NZS 1530.3	Range 0-10	0
	Smoke Developed Index	AS/NZS 1530.3	Range 0-10	0-1
Combustibility	Core Material	AS/NZS 1530.1	Non-Combustible	Pass
	Aluminium Skin	AS/NZS 1530.1	Non-Combustible	Pass

COIL SPECIFICATION

	TEST STANDARD	REQUIREMENT	RESULT
Alloy / Temper	ASTM B209	...	3105 - H16
Tensile Strength	ASTM E8	172 - 221 N/mm ²	196 N/mm ²
Yield Strength	ASTM E8	Min. 145 N/mm ²	190 N/mm ²
Elongation	ASTM E8	Min. 1.0%	4.2%
Modulus of Elasticity	ASTM E111	Measure Value	69 GPa

MECHANICAL PROPERTIES

	TEST STANDARD	REQUIREMENT	RESULT
Peel off Strength	ASTM D 903	≥ 10 kg / 25 mm	17.35 kg/25 mm
Shear Strength	ASTM C 273	≥ 3.2 MPa	3.35 MPa
Tensile Strength	ASTM E 08	> 35 MPa for 4mm	44.48 MPa
Punch Shear Test	ASTM D 732	≥ 20 MPa	23.77 MPa
Climbing Drum Peel	ASTM D 1781	measure value	130.8 N.mm/mm
0.2% Proof stress	ASTM E8	measure value	49.0 MPa
Modulus of Elasticity	1S0178-2019	measure value	26,281 MPa
Flexural Strength	1S0178-2019	measure value	163.4 MPa
CWCT (Centre for Window & Cladding Technology) Test Methods for Building Envelopes, 2055			
Watertightness - Dynamic Pressure	CWCT	600 pascals	Pass
Wind Resistance - Serviceability & Safety	CWCT	1200/-1200 pascals serviceability 1800/-1800 pascals safety	Pass
Impact Resistance	CWCT TN76	Soft body: 120 J for serviceability and 350 J & 500 J for safety Hard body: 3 J, 6 J and 10 J for serviceability and safety	Pass

THERMAL PROPERTIES

	TEST STANDARD	REQUIREMENT	RESULT
Temperature for Thermal deformation	ASTM D 648	≥ 100°C	149°C
Linear Thermal Expansion per 100°C	ASTM D 696	≥ 2.4 mm/m/°C°	≥ 2.4 mm/m/°C°
Thermal Conductivity	ASTM C 518	Measure Value	0.129 W/Mk

COATING PROPERTIES AND PERFORMANCE

	TEST STANDARD	REQUIREMENT	RESULT
Coating Thickness	ASTM D 1400	≥ 25 µm	≥ 25 µm
Weathering Resistance	ASTM C 481	A. Shear Strength B. Film Adhesion C. Impact Resistance	A. 3.20 MPa (after exposure) B.1. Dry Adhesion - No removal of film B.2. Wet Adhesion - No removal of film B.3. Boiling Water - No removal of film C. Impact Resistance - No removal of film
Corrosion Resistance	ASTM 2605	A. Humidity Resistance (@4000 hours exposure) B. Salt Spray Resistance (@4000 hours, 35°C)	A. No formation of blisters B.1. Scribed - rating of 9 B.2. Unscribed - rating of 10
Chemical Resistance	ISO 2812 -1: 2014	A. Acid Resistance B. Alkali Resistance C. Oil Resistance D. Solvent Resistance	A. NO CHANGE B. NO CHANGE C. NO CHANGE D. NO CHANGE
Abrasion Resistance	ASTM D 968	≥ 50 L/mil	56.0 L/mil
Pencil Hardness	ASTM D 3363	≥ H	≥ H
T-Bend Test	ASTM D 522	2T (No Cracks)	2T (No Cracks)
Film adhesion DRY (@27 °C) WET (@38 °C, 24hrs) BOILING (@100 °C, 20hrs)	AAMA2605 (Clause 7.4)	No removal of film	No removal of film within or outside of the cross-hatched area; No blistering was observed
Impact Resistance Test 50 kg- cm	AAMA2605 (Clause 7.5)	No removal of film	No removal of film





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VITRASHIELD NC™ / JUNE 2024