

NON-COMBUSTIBLE COMPOSITE PANEL / MANUFACTURED BY FAIRVIEW as deemed by the BCA



# **PRODUCT INTRODUCTION**



DEFINING ARCHITECTURE SINCE 1963

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# ABOUT





# PRODUCT DESCRIPTION

Manufactured by Fairview; Vitracore Generation 2 (G2), is a Deemed to Satisfy, non-combustible panel with a profiled aluminium core; tested to AS1530.1 and AS1530.3.

Visually, Vitracore G2 is the same as traditional composite panel; but what makes it different is the technology of the core, which is constructed from an aluminium structure rather than combustible material.

It is the same to fabricate and install as traditional ACP, and utilises the PPG coating system; thus is available in the same extensive colour range as Vitrabond.

The technology of the core also allows continual production; providing an exceptionally consistent and cost effective product. This high performance panel is ideal for all façade and soffit applications; providing the decisive solution to high demands and requirements.

The benefits of Vitracore G2 include its high mechanical properties and simple fabrication. The outstanding surface flatness of Vitracore is enhanced with a high quality PVDF coating system, which provides optimum resistance to weather and industrial pollutants in an unlimited range of colours, or a selection of natural finishes.

Vitracore G2 can be easily and accurately installed by a pre-made cassette system, requires very minimal maintenance and comes with a 15 year warranty.

# KEY BENEFITS

- DEEMED NON-COMBUSTIBLE AS REQUIRED BY
  THE BCA
- COST EFFECTIVE, LARGE STOCK HOLDINGS &
   SHORT LEAD TIMES
- 15 YEAR WARRANTY
- TESTED TO AS1530.1 & AS1530.3
- VISUALLY THE SAME AS TRADITIONAL COMPOSITE PANEL
- IMITATIONS SUCH AS CORTEN
- CORE TECHNOLOGY ALLOWS FOR CONTINUAL PRODUCTION; RESULTING IN AN EXCEPTIONALLY CONSISTENT PRODUCT
- AVAILABLE IN MANY FINISH OPTIONS INCLUDING SOLID & METALLIC, NATURAL COPPER &ZINC, STAINLESS STEEL, SPECIAL EFFECTS COLOURS, STONE, TIMBER LOOK & NATURAL METAL

VITRACORE G2 / NON-COMBUSTIBLE COMPOSITE PANEL

In today's Architecture, it is the technical details, as well as the appearance that count; such as sustainability, thermal insulation, and fire protection.

Vitracore G2 is one of the few Aluminium Composite Panels (ACPs) globally, that is deemed non-combustible under the Building Code of Australia (BCA) and when tested to AS1530.1.

Visually, Vitracore G2 is the same as traditional composite panel; but what makes it different is the technology of the core, which is constructed from an aluminium structure rather than combustible material such as polyethylene and fire rated mineral. This makes Vitracore G2 the ideal product for all applications where fire resistance is required; be it high-rise buildings, Schools, Hospitals.

As with all building products, the use of Vitracore G2 must be authorised by the regulatory body.

The Fire Resistance standards achieved with standard Vitracore G2 are as follows

VITRACORE G2						
TEST STANDARD	RESULT					
AS1530.1	DEEMED NON-COMBUSTIBLE					
AS1530.3	PASS	Ignitability Index	0			
	PASS	Heat Evolved	0			
	PASS	Spread of Flame	0			
	PASS	Smoke Developed	1			









# MANUFACTURING QUALITY

A dedication to the total fulfillment of our client's and customer's expectations is reflected by a complete quality control system, beginning at the point of specification and continuing through to delivery of the guaranteed products. All activities are carried out in a manner which:

- Uses the framework of ISO9000 Quality Standards to verify the quality of our systems
- Ensures that our products and services are of the highest standards
- Create continuous improvements to our product through the application of the best quality practices.

### ACCEPTANCE VARIATION

WIDTH	±2.0 mm
LENGTH	±4.0 mm
THICKNESS	$\pm 2\%$ for 3 mm & 4 mm; 3% for 6 mm
BOW MAXIMUM	0.5% of the length and/or width
SQUARENESS MAXIMUM	5.0 mm
SURFACE DEFECTS	The surface shall not have any irregularities such as dents, scratches and other imperfections in accordance with our quality assurance

#### WARRANTY

The standard warranty is 15 years, with longer warranties available on a project specific basis.

# PROPERTIES

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## SKIN & CORE

Aluminium Skins - surface material both sides: 0.7mm faceskin, 0.5mm rear skin. Core Material - Aluminium

#### DIMENSIONS

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#### WEIGHT

THICKNESS	WEIGHT (kg/m2)	
4mm	4.4	

# TYPICAL COMPOSITION

- 1. Peel-off Protective Film
- 2. Clear Coating
- 3. PVDF Coloured Coating
- 4. Primer Coating
- 5. 0.7mm Aluminium Skin
- 6. 3mm Profiled Aluminium Core
- 7. 0.5mm Aluminium Skin
- 8. Polyester Anti-corrosion Coating

The composite material is rigid, resistant to blows, breakage and pressure, and has high bending, buckling and breaking strengths.

# TECHNICAL DATA

CLASSIFICATION	TEST STANDARD	UNIT	VITRACORE G2
PANEL WEIGHT		[kg/m2]	4.4kg/m2
THICKNESS		[mm]	4
THICKNESS OF ALUMINIUM FACE		[mm]	0.7
WIDTH		[mm]	1220/1500
ALUMINIUM SKIN			
TENSILE STRENGTH			160MPa
ALLOY/TEMPER OF AUMINIUM LAYERS			3003 H24
SURFACE PROPERTIES (PVDF COATINGS)			
DRY FILM THICKNESS (NOMINAL)	ASTM D1400		0.20-0.30 mil primer 0.70-0.80 mil topcoat
GLOSS	ASTM D523		Standard @ 60°: 25-35 Duranar LG @ 85°: <10
PENCIL HARDNESS	ASTM D3363		F-2H
FLEXIBILITY	T-Bend, ASTM D4145		0-2 T-Bend; No pick-off
ADHESION	ASTM D3359 Reverse Impact 1/16' crosshatch		No adhesion loss
REVERSE IMPACT	ASTM D2794		1.5 x Metal thickness (aluminium): No cracking or adhesion loss
ACID RESISTANCE	ASTM D1308		10% Muriatic acid - 24 hrs: No effect
ACID RAIN TEST	Kesternich SO², DIN 50018		15 Cycles min. No objection- able colour change
ALKALI RESISTANCE	ASTM D1308 10%, 25%, NaOH, 1 hr.		No effect
SALT SPRAY RESISTANCE	ASTM B117 5% salt fog @ 95°F		Passes 4000 hrs. Less than 1/1' avg. creepage from scribe; None or few #8 blisters
HUMIDITY RESISTANCE	ASTM D714 ASTM D2247 100% relative humidity @ 95°F		Passes 4000 hrs. No #8 blisters
EXTERIOR EXPOSURE	10 yrs. @ 45°, South Florida ASTM D2244ASTM D4214		Max. 5 fade Max. 8 chalk

# FINISHES





#### STOVE LACQUERING

Vitracore G2 uses only the highly recognised PVDF KYNAR 500 or FEVE paints known for their high durability. These premium paints provide an optimum resistance to weather and industrial pollution. More than 40 years of South Florida Exposure Testing is continuing to confirm the superior chemical and physical properties of fluoro polymer coatings.

Vitracore G2 has unlimited colour, we are able to match any finish, from any colour range.

### ANODISING

Vitracore G2 panels come in a range of Anodised finishes, offering both standard and customised colours and textures.

# NATURAL FINISHES

Fairview offers the following natural finished panels.

- Vitracore G2/ZN Natural zinc composite panel
- Vitracore G2/CU Natural copper composite panel
- Vitracore G2/SS Stainless Steel composite panel





## FIXING SYSTEM

#### **CASSETTE FIX**



#### For more details, please refer to the Vitracore G2 Installation Manual







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#### FAIRVIEW PRODUCT RANGE:





COMPRESSED FIBRE CEMENT FACADE / MANUFACTURED BY FAIRVIEW





vitranamel

VITREOUS ENAMEL PANEL / MANUFACTURED BY FAIRVIEW



NON-COMBUSTIBLE COMPOSITE PANEL / MANUFACTURED BY FAIRVIEW







ALUMINIUM COMPOSITE PANEL / MANUFACTURED BY FAIRVIEW





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