# PRODUCT INTRODUCTION

# vitrabond®

ALUMINIUM COMPOSITE PANEL / MANUFACTURED BY FAIRVIEW



# ABOUT VITRABOND

Vitrabond Aluminium Composite Panel (ACP), is Fairview's highly versatile façade cladding panel, offering excellent durability and extreme weather resistance. It is ideal for facades, fascia, soffits, awnings and many more applications such as standing seam cladding and balustrades.

The 4mm thick composite panel is comprised of a fire resistant core, sandwiched between either two aluminium or other natural metal cover sheets. This results in an outstanding surface flatness and high workability, coupled with an excellent strength to weight ratio. The fire resistant core means the panel does not propogate flame in large scale fire testing.

Vitrabond can be easily and accurately installed by a concealed tape-fix system or by fabricating off-site into premade cassettes and then secret-fixed to a top hat sub-structure with hidden mechanical fittings.

Vitrabond requires minimal maintenance and has an up to 20 year warranty when installed by a licensed installer. With a long track record of consistency, reliability and quality, in addition to our large stock levels, unlimited colour range and continual product development; Vitrabond is well-equipped to meet the requirements for every project.

### **KEY FEATURES**



#### **FIRE RESISTANT**

Vitrabond has been thoroughly tested to the Australian Standards by NATA approved CSIRO and Warrington Fire including full room burn and façade tests. A2 core is also available.



#### COST EFFECTIVE

Vitrabond has enjoyed consistent growth not only due to the desire for a clean and modern look, but also as a product offering rapid cost effective installation.



#### WEATHERPROOFED

Vitrabond is weatherproofed to BCA clause FP1.4.



#### WARRANTY

Vitrabond has a long track record of consistency, reliability and quality allowing us to offer up to a 20 year warranty when installed by a licensed installer.



#### CONCEALED FIX SYSTEM Vitrabond can be installed by routing and folding panels into the concealed fix z-angle cassette system.

### PAINT SYSTEM



Vitrabond only uses the highly recognised PVDF KYNAR 500 or FEVE paints known for their durability, providing the optimum weather and UV resistance.

#### CODEMARK



Vitrabond is ABCB CodeMark certified to comply with the building code of Australia ensuring that you are specifying a quality assured product.



### LOW MAINTENANCE

The Vitrabond finish has undergone 50+ years of exposure testing which is continuing to confirm the superior durability and low maintenance of fluorpolymer coatings.





# FIRE RESISTANCE

The Fire Resistance standards achieved with Vitrabond FR are as follows:

VITRABOND FR					
TEST STANDARD	RESULT				
AS 1530.3	Pass	Ignitability index	0		
		Heat Evolved	0		
		Spread of Flame	0		
		Smoke Developed	0-1		
AS 5113 (large scale wall test)	Flame spread and temperatures well below AS 5113 requirements. Total debris and flaming debris did not meet criteria				
BRE-135 & BS 8414	Pass				
ISO 9705	Group 2				
NFPA 285 (large scale wall test)	Pass				

Given the lack of flame propagation in extensive large scale testing, Vitrabond FR can generally be used on a performance basis to meet fire resistance and building safetyrequirements. However, for an aluminium composite panel appropriate for use where non-combustible material is required, see Fairview's Vitracore G2 deemed non-combustible 4mm composite panel by Fairview, tested to AS1530.1.

### WEATHERPROOFING

Vitrabond is a faced system that can provide a primary seal for the purpose of weatherproofing. This conforms with BCA clause FP1.4 and therefore meets the requirements of being able to withstand static wind pressure for weather resistance.

This means that, where compliant, Vitrabond can be used as the primary sealing layer therefore minimising wall build up and maximising efficiencies. It is highly recommended that fixings be made in accordance with Fairview's instructions and procedures to ensure that the surface is watertight and able to resist thermal or wind movements of the façade.

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## 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	±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

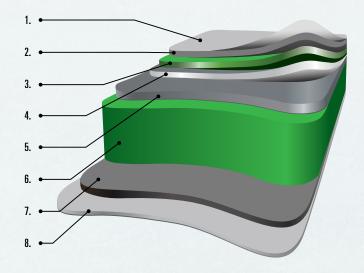
A warranty of up to 20 years is offered, when installed by a licensed installer.



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# **TYPICAL COMPOSITION**

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



WIDTH	LENGTH	THICKNESS		
1250	2500			
	3200			
	4000			
1570	2500	4mm		
	3200			
	4000			
CUSTOM SIZES ARE AVAILABLE, PLEASE SPEAK TO THE FAIRVIEW TEAM				

# DIMENSIONS

### WEIGHT

THICKNESS	WEIGHT (KG/M²)	
4mm	7.3	



# TECHNICAL DATA

CLASSIFICATION	TEST STANDARD	UNIT	VITRABOND
PANEL WEIGHT		[kg/m <sup>2</sup> ]	7.3
THICKNESS		[mm]	4
THICKNESS OF ALUMINIUM FACE		[mm]	0.5
MAXIMUM WIDTH		[mm]	2000
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 c adhesion loss
ACID RESISTANCE	ASTM D1308		10% Muriatic acid - 24 hrs No effect
ACID RAIN TEST	Kesternich SO <sup>2</sup> , DIN 50018		15 Cycles min. No objectionable 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	ASTM D2244 ASTM D4214 10 yrs. @ 45°, South Florida		Max. 5 fade Max. 8 chalk

CONNOR APARTMENTS CENTRAL PARK, SYDNEY, NSW

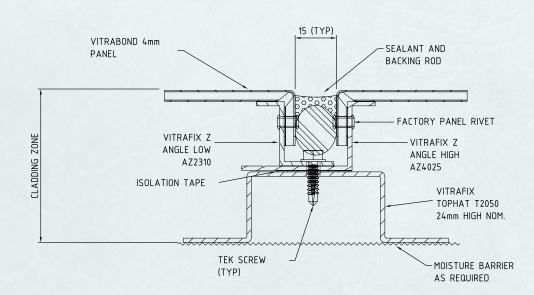


# FINISH

Vitrabond 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 50 years of South Florida Exposure Testing is continuing to confirm the superior chemical and physical properties of fluoro polymer coatings.

Vitrabond has an unlimited colour range. We are able to match almost any finish and colour required.

Vitrabond panels also come in a range of anodised finishes, offering both standard and customised colours and textures as well as natural zinc, stainless steel, copper and other natural metal finishes. It can also be used with our custom graphic cladding solution, VitraART, to create a truly individual façade that comes with a 10 year exterior warranty.



### FIXING SYSTEM

Concept drawing only. For more details, please refer to the Vitrabond Installation Manual

MERRIFIELD DISPLAY CENTRE, VIC



AUSTRALIA / NEW ZEALAND / UNITED KINGDOM SALES ENQUIRIES 1800 007 175 HELPDESK.AU@FV.COM.AU

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DEFINING ARCHITECTURE SINCE 1963