



Certificate of Conformity

Certificate number: CM40079 Rev 5

THIS TO CERTIFY THAT

Vitrabond FR-Cladding System

Certification Body:

 **CertMark**
International
ABN: 80 111 217 568
JAS-ANZ Accreditation
No. Z4450210AK
PO Box 7144, Sippy
Downs Qld 4556
+61 (07) 5445 2199
www.CertMark.org

Certificate Holder:

 **FAIRVIEW**
REFINING ARCHITECTURE SINCE 1989
Fairview Architectural
ABN: 56 111 935 963
18-20 Donald St
(PO Box 277)
Lithgow NSW 2790
Ph: 61 2 6352 2355
W: www.fv.com.au

Type and/or use of product:

The Vitrabond FR Cladding System is an Aluminium Composite Panel (ACP) for use as a non-structural decorative veneer attachment to an external or internal^(b) walling system.

Description of product:

- The Vitrabond FR ACP Cladding System components are listed in A2.
- Vitrabond FR Cladding System incorporates an ACP composed of a mineral fibre and polymer binder core sandwiched between two adhesive layers and two skins of aluminium alloy with a painted finish. It is fixed to a walling system using either a cassette fix or tape fix methodology.
- The Vitrabond FR panel and fixing systems(s) collectively are referred to as the Vitrabond FR Cladding System.

Panel Dimensions

Thickness: 4mm.
Panel width: Standard 1250mm, 1570mm.
Panel Length: Standard 2500mm, 3200mm, 4000mm.

COMPLIES WITH THE FOLLOWING BCA PROVISIONS AND STATE OR TERRITORY VARIATION(S)

BCA 2016

Performance Requirement(s)	Volume One		Volume Two	
	BP1.1 (b)(iii)	Structural Reliability- as relevant to Wind Action	P2.1.1 (a) (b) (i) (ii) (iii) (viii)(x) (xi) (xiv)	Structural Stability and Resistance to Actions
	CP2	Spread of Fire (attachment will not impair the FRL) ^(b)	P2.3.1	Spread of Fire (attachment will not impair the FRL) ^(b)
	CP4(a),(c)	Materials and assemblies - as relevant to Smoke and Toxic Gases	P2.3.4	Buildings in Bushfire Areas (BAL 19)
	CP8	Openings and Penetrations	P2.2.2	Weatherproofing
	FP1.4	Weatherproofing		
	GP5.1	Construction in Bushfire Prone Areas – (BAL 19)		
Deemed-to-Satisfy Provision(s):	Not applicable to this product		Not applicable to this product	
State or territory variation(s):	NSW and QLD. GP5.1, Tas. GP5.1(a) Design and construction – as relevant to Bushfire prone areas		SA P2.3.1(a)(ii)(iii). TAS P2.3.4.	

SUBJECT TO THE FOLLOWING LIMITATIONS AND CONDITIONS AND THE PRODUCT TECHNICAL DATA IN APPENDIX A AND EVALUATION STATEMENTS IN APPENDIX B

- a.** The installation of the Vitrabond FR Cladding System using the 3M VHB Tape Fixing System, is only permitted on walls that have the required FRL when evaluated by a Fire Safety Engineer. The installation may not be subjected to temperatures greater than 120°C, being the maximum working temperature of the tape. **Building classification/s:** Class 1, 2, 3, 4, 5, 6, 7, 8, 9 or 10
- b.** The Vitrabond FR Cladding System may be used on an internal wall or ceiling where a Group 2 material is permitted under BCA Specification C1.10 Table 3. 2 except in fire-isolated exits and fire control rooms, unsprinklered public corridors of Class 9b buildings or parts as well as unsprinklered public corridors of Class 3 and 9a buildings for the accommodation for the aged, people with disabilities, and children.

Scope of certification: The CodeMark Scheme is a building product certification scheme. The rules of the Scheme are available at the ABCB website www.abcb.gov.au. This Certificate of Conformity is to confirm that the relevant requirements of the Building Code of Australia (BCA) as claimed against have been met. The responsibility for the product performance and its fitness for the intended use remain with the certificate holder. The certification is not transferable to a manufacturer not listed on Appendix A of this certificate.

Disclaimer: The Scheme Owner, Scheme Administrator and Scheme Accreditation Body do not make any representations, warranties or guarantees, and accept no legal liability whatsoever arising from or connected to, the accuracy, reliability, currency or completeness of any material contained within this certificate; and the Scheme Owner, Scheme Administrator and Scheme Accreditation Body disclaim to the extent permitted by law, all liability (including negligence) for claims of losses, expenses, damages and costs arising as a result of the use of the product(s) referred to in this certificate.


John Thorpe - CMI


Don Grehan – Unrestricted Building Certifier

Date of issue: 11/11/2016

Date of expiry: 11/11/2019





Certificate of Conformity

APPENDIX A – PRODUCT TECHNICAL DATA

A1 Type and intended use of product

Refer to page 1

A2 Description of product

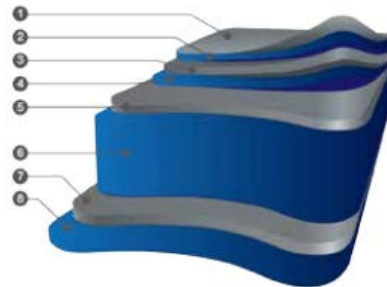
Fixing System Components

Components	Cassette Fix Method	Tape Fix Method
3M VHB Tape	X	X
Zed Angles-aluminium	X	
Top Hat	X	X
Stiffener-aluminium	X	
Sealant / Caulking	X	X
Screws / Fixing	X	
Open cell backing rod	X	
Sarking	X	X

Source: Certificate holder's installation manuals

Vitrabond FR Panel Description

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



ALUMINIUM SKINS

Surface material both sides: 0.5mm Aluminium sheets of a minimum 3000 series grade.

CORE MATERIAL

The standard Fire Retardant (FR) core is a mineral filled core, the key component being the Compound Aluminium Hydroxide.



Certificate of Conformity

A3 Panel Product specification

ACP Panel Specifications

CLASSIFICATION	UNIT	4mm Vitrabond FR
Panel Weight	kg/m ²	7.3
Tensile Strength	kg/m ²	5.15
Yield Strength	kg/m ²	12.7
Elongation	%	7.1
Flexural Stiffness (250mm span)	kg/m ²	6.7x10 ⁸
Flexural Elasticity	kg/m ²	3666
Deflection Temperature:	°C	116
Thermal Expansion	x10-6/ °C	24
Thermal Conductivity	Kcal/mhr °C	0.39
BOND INTEGRITY		
> Vertical Pull	N/mm ²	5.9
> Drum Peel	N/mm ²	368.7
> Flat Shear	N/mm ²	6.84
Sound Isolation Rate	500Hz	R _w -26
	1000Hz	R _w -29
Sound Reduction STC	4.5-4KHz	25
ALUMINIUM SKIN		
Tensile Strength	N/mm ²	Rm140
0.2% Proof Stress	N/mm ²	Rp0.2100
Elongation (50mm)	%	A501

A4 Manufacturer and manufacturing plant(s)

Jiangyin Fairview Composites Co. Ltd.
 18#, Huanxi Road,
 Huashi Industrial Zone,
 Jiangyin, Jiangsu, China.

A5 Installation requirements

- a. The Vitrabond FR Cladding System is permitted to be used on buildings of Type A, B or C construction, being fitted with or without an automatic fire sprinkler system and at any distance on walls that does or does not require a Fire Resistance Level.
- b. It is suitable for the Vitrabond FR Cladding System to be fixed through any insulation, weatherproofing, sarking-type (fire resistant or acoustic) material direct to the primary building element or wall frame.
- c. The Vitrabond FR Cladding System is permitted to be installed in bushfire areas (up to BAL19) on the exposed components of an external wall, that are 400mm or more from the ground or 400mm or more above decks, carport roofs, awnings and similar elements or fittings having an angle less than 19 degrees to the horizontal, and extending more than 110mm in width from the wall and maintain compliance with the requirements of AS 3959-2009.



Certificate of Conformity

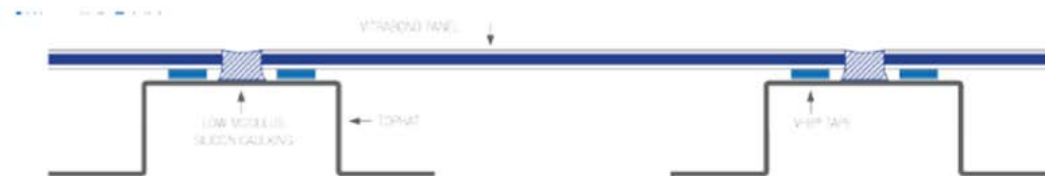
- d. The Vitrabond FR Cladding System is permitted to be used on the exterior wall vertically, horizontally or on a roof of a building, awning, architectural feature or the like as part of the external wall.
- e. It is suitable for the Vitrabond FR Cladding System to have penetrations through the panel where the core material is left exposed to free air. No sealing or additional fire protection measures are required for the panel itself (excluding any fire rated wall system) to protect the penetration.
- f. The Vitrabond FR Cladding System is not required to have a non-combustible layer between it and the building element, being the wall frame, be it timber, steel, concrete or masonry unless required for other purposes, i.e. weatherproofing or fire separation.
- g. Where aluminium materials come in contact with dissimilar metals, a proper insulator or isolation tape should be applied to insulate between dissimilar materials in order to avoid corrosive and electrolytic action.
- h. The Cassette Fix system is to be installed in accordance with the [Vitrabond FR Cassette Fix Installation Manual V6](#).
- i. The Tape fixing must be installed in accordance with the [Vitrabond Installation details -3M Tape fix details July 2013](#).
- j. For Cassette Fix, the bend-in portions between panel joints must not be caulked before strippable film is removed.
- k. Controlled versions of the above-mentioned guides can be found on the CMI register at www.certmark.org.

CASSETTE FIX



Source: Certificate holder's installation manual

3M™ TAPE FIX



Source: Certificate holder's installation manual



Certificate of Conformity

A6 Other relevant technical data

When tested to AS1530.3:1999. The Panel archives the following results:

Value	FR Panel Results
Ignitability	0
Spread of flame	0
Heat evolved	0
Smoke Developed	1

APPENDIX B – EVALUATION STATEMENTS

B1 Evaluation methods

1. Fire assessment - A2.2 (a) (i) & (iii) and 1.2.2 (a) (i) & (iii) Reports from NATA accredited test Laboratories, certificates from Professional Engineers.
2. Weatherproofing - A2.2 (a) (iii) and 1.2.2 (a) (iii) certificates from Professional Engineers.
3. Structural Reliability-as relevant to Wind Action-A2.2 (a) (iii) and 1.2.2 (a) (iii) certificates from Professional Engineers.

B2 Reports

1. Intertek Report 3163205SAT-001 dated 7 October 2008, NATA Accreditation No: 19057. Testing to ASTM E84- 08. When tested to ASTM E84-08 (also published under NFPA 255) standard test method for surface burning characteristics of building materials, the Panel achieves a Flame Spread Index of 0 and a Smoke Development Index of 5.
2. CSIRO Report FNE11267 NATA accreditation number 165. Testing to AS1530.3:1999. Testing to establish the ignitability, flame propagation, heat release and smoke release properties of the Panel.
3. CSIRO Report FE 2649 dated 31 October 2014 NATA accreditation number 165. Testing to AS/ISO 9705:2003. The report concludes that in accordance with BCA Group 2 classification based on AS/ISO 9705:2003 room fire test, in accordance with BCA Specification C1.10 based on a Smoke Growth Rate Index (SMOGRARC) not exceeding 100 ($m^2/s^2 * 1000$), the subject product may be used in buildings without sprinklers.
4. CSIRO Certificate of Assessment No 2144 NATA accreditation number 165. Testing to AS/ISO 9705:2003 room corner test standard.
5. Architectural Testing Report C1783.01-121-24 dated 15 October 2012. Testing to NFPA 285. Test reports conforms compliance with the testing requirements of NFPA 285.
6. Ignis Solutions Fire Engineering Evaluation 2015-3100 A.01 dated 01 October 2015 RPEQ 11498. Professional Engineers Report performance requirements of CP2 and CP4. Demonstrations of the performance requirements of the product with the National Construction Code Volume 1 – Building Code of Australia (BCA).
7. Enertren Pty Ltd Report FAR-002 dated 14/2/2013. Testing to AS 1170.2:2011. Engineering Specifications for Cyclonic Regions references wind loading to AS 1170.2:2011.
8. BG&E Façade Consultants advice dated 30 June 2016. Performance based verification in the National Construction Code (NCC). Weatherproofing including compliance with the NCC for a positive serviceable static wind pressure of up to 600pa for weather resistance.