



# Is VITRADUAL external cladding a banned product? Or not?



**Firas Naji**

Senior Building Surveyor - Fire Safety - Grade A2 Restricted All Classes of Building - Parramatta Council - Town Planner & BCA Consultant at Silver...

June 15, 2023

## The Backstory.

I was assessing a fire engineering report of a building that had an existing banned combustible cladding system installed on its façade. The existing cladding system that

was used was 'CM40067 – Alpolic FR' cladding which had its [CodeMark Certificate withdrawn](#).

The fire engineer report was proposing the use of Vitradual Cladding system to remediate the external combustible cladding system of the subject building in response to Council's fire safety order.

I found that the fire engineer has relied on the CodeMark Certificate of [VITRADUAL](#) Cladding System to support the proposed product and state that it is a NON banned product and complies with the Building Code of Australia.

### The Findings

Upon further assessment, the following findings were discovered:

1. The fire engineer relied on the [CodeMark Certificate](#) VITRADUAL 'CM30117 Rev 1' Date of issue 28/8/2020, dated of expiry 28/8/2023 to declare that the proposed new cladding system (When installed in accordance with manufacturers specifications) would be compliant. The fire engineer appears to have taken an advantage of the exception (a) under the Building Product Use Ban.
2. The CodeMark Certificate (Relied on by the fire engineer) above was issued based on the CSIRO AS 1530.1 Test Report, VITRADUAL 'REPORT NO. FNC11690' Date OF TEST 21 June 2016.

# Certificate of Test

Quote No.: NC7536

REPORT No.: FNC11690

## COMBUSTIBILITY TEST FOR MATERIALS IN ACCORDANCE WITH AS 1530.1-1994

TRADE NAME: Vitradual

SPONSOR: Fairview Architectural Pty Ltd  
18-20 Donald St  
LITHGOW NSW 2790  
AUSTRALIA

DESCRIPTION OF TEST SAMPLE: The sponsor described the tested specimen as an uncoated solid aluminium panel. The 45-mm diameter aluminium discs were loose laid on each other and stacked up without adhesive to form the 50-mm height suitable for testing.

Nominal total thickness: 3-mm  
Nominal mass: 7.9 kg/m<sup>2</sup>  
Nominal total density: 2380 kg/m<sup>3</sup>  
Colour: silver (mill finish)

TEST PROCEDURE: Five (5) samples were tested in accordance with Australian Standard 1530 Methods for fire tests on building materials, components and structures, Part 1- 1994: Combustibility Test for Materials.  
An alternative suitable insulating material was used to fill the annular space between the furnace tubes, as specified in Clause 4.2 of ISO 1182:2010.

RESULTS: Mean furnace thermocouple temperature rise..... 9.5°C  
Mean specimen centre thermocouple temperature rise ..... 5.3°C  
Mean specimen surface thermocouple temperature rise..... 6.4°C  
Mean duration of sustained flaming..... 0 seconds  
Mean mass loss..... 0.3%

DESIGNATION: The material is NOT deemed COMBUSTIBLE according to the test criteria specified in Clause 3.4 of AS 1530.1-1994

These test results relate only to the behaviour of the test specimens of the material under the particular conditions of the test and they are not intended to be the sole criterion for assessing the potential fire hazard of the material in use.

DATE OF TEST: 21 June 2016

Issued on the 16<sup>th</sup> day of August 2016 without alterations or additions.

  
Heherson Alarde  
Testing Officer

  
Brett Roddy  
Team Leader, Fire Testing and Assessments

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Number: 165  
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Accredited for compliance with ISO/IEC 17025.

CSIRO INFRASTRUCTURE TECHNOLOGIES

14 Julius Avenue, Riverside Corporate Park, North Ryde NSW 2113 AUSTRALIA  
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3. However, the Building Product Use Ban notice that was issued under [Section 9\(1\) of the Building Product \(Safety\) Act 2017](#) by the Commissioner of Fair Trading, Rosemary Ann Webb, from the Department of Finance, Services and innovation on the 10th of August 2018, specified under subclause (c) that in order to benefit from the exemption under subclause (a) of the notice, the tests under AS1530.1 (Which is a material sample rest) or AS

5113 (Which is a full façade panel test) must have been tested on or after 1st of July 2017.

4. As such, further clarification is required to demonstrate how the proposed external cladding system VITRADUAL is a non-banned product after all!

subject to the following exceptions:

- a) the building product is not deemed combustible by successfully passing a test in accordance with Australian Standard 1530.1-1994 'Methods for fire tests on building materials, components and structures' (AS 1530.1);

or


- b) the building product and proposed external wall assembly has successfully passed a test for both the EW (external wall fire spread) and BB (building-to-building fire spread) classifications in accordance with Australian Standard 5113 'Fire Propagation testing and classification of external walls of buildings' (AS 5113) and the proponent of the use of the building product tested to AS 5113 documents by statutory declaration that the building product will be installed in a manner identical to the tested prototype wall assembly or façade,

and

- c) the AS 1530.1 or AS 5113 test results to be relied upon to except a building product from the ban are produced by an Accredited Testing Laboratory, and describe the methods and conditions of the test and the form of construction of the tested building product or prototype wall assembly or façade, and are dated on or after 1 July 2017.

This building product use ban commences Wednesday 15 August 2018 and remains in force until it is revoked.

DATED the 10th day of August 2018.



**ROSEMARY ANN WEBB**  
**COMMISSIONER FOR FAIR TRADING**  
**DEPARTMENT OF FINANCE, SERVICES AND INNOVATION**

### The Question

Please note, I am NOT suggesting that the VITRADUAL is a 'combustible cladding'. It is deemed non- combustible.



NON-COMBUSTIBLE CASSETTE CLADDING / MANUFACTURED BY FAIRVIEW

## KEY FEATURES

Vitr dual's versatility is achieved due to the combination of high-quality considerations and industry leading components. It is an ideal product for application in Type A and B developments where non-combustible building materials are critical. Vitr dual is one of the few large format cladding panels that are deemed non-combustible when tested to AS1530.1 and AS1530.3.


PRODUCT	VITRADUAL
Product DNA	Pre-finished solid aluminium panel
Finish	Vitr dual uses only the highly recognised PVDF Kynar 500® or FEVE paints known for their high durability, providing the optimum resistance to weather and industrial pollution.
Fixing System	A cassette style concealed fixing system which is the same to fabricate and install as traditional ACPs.
Application	Type A and B constructions where non-combustible materials are required such as mixed-use developments, residential construction, and large-scale government infrastructure projects like hospitals.
Warranty	15-year warranty, subject to standard terms and conditions.

I am rather questioning the validity of its use based on the findings above. Given that the codemark certificate relied on a test report that predates the building product use ban cut-off date (1st of July 2017) by almost 12 months. However, it is still being relied upon and being proposed as a complaint 'non- banned product'?


Am I missing something here? Please educate me. I would love to be enlightened with your professional comments and constructive feedback.

On page 5 of 5, In APPENDIX B- EVALUATION STATEMENTS of VITRADUAL CodeMark Certificate, the last row of Section B1 Evaluation Methods, under 'Evidence reference in B2' column, it refers to items 6,7,8 & 9. However, in row

number 6 for CSIRO of B2 Reports the date shown is 21 June 2016. Please see screen the shot below that graphically illustrates this.




## Certificate of Conformity


<b>Certification Body:</b>  Global-Mark Pty Ltd, Suite 4.07, 32 Deeth Road, North Ryde NSW 2113, Australia Ph: +61 2 9886 0222 <a href="http://www.global-mark.com.au">www.global-mark.com.au</a>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2" style="text-align: center;">THIS TO CERTIFY THAT</td> <td style="text-align: right;">Certificate number: CM 30117 Rev 1</td> </tr> <tr> <td colspan="3" style="text-align: center;"><b>VITRADUAL</b></td> </tr> <tr> <td style="width: 50%; vertical-align: top;"> <b>Type and/or use of product:</b>                      VITRADUAL panels are used in external wall cladding, in all building types (NCC Volume 1 &amp; 2)                 </td> <td colspan="2" style="vertical-align: top;"> <b>Description of product:</b>                      VITRADUAL panels are 3 mm thick PVDF coil coated solid Aluminium panels installed with metal fixing system. Standard panel sizes include width of 1,250mm &amp; 1,500mm and length of 2,500mm, 3,200mm &amp; 4,000mm. 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**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](http://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.  
 The purpose of Global-Mark construction site audits is to confirm the practicability of installing the product; and to confirm the appropriateness and accuracy of installation instructions in placing the CodeMark mark on the product/system, the certificate holder makes a declaration of compliance with the certification standard(s) and confirms that the product is identical to the product certified herein. In issuing this Certificate of Approval Global-Mark has relied on the expertise of external bodies (laboratories, and technical experts).


Herve Michoux  
Global-Mark Managing Director

  
Peter Gardner  
Unrestricted Building Certifier

Date of issue: 28/8/2020  
Date of expiry: 28/8/2023




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## Certificate of Conformity

APPENDIX B – EVALUATION STATEMENTS

**B1 Evaluation methods**

The following assessment methods have been used to determine compliance with NCC 2019:

Code Clause	Assessment Method(s)	Evidence of suitability	Evidence reference in B2
NCC Volume One BP1.1	Combination of A2.2 (2) (a), (b) & (c)	Combination of A5.2 (1) (d), (e) & (f) – Test Report, Expert judgement & Other documentary evidence	Items 1, 2, 3, 4 & 5
NCC Volume Two P2.1.1	Combination of A2.2 (2) (a), (b) & (c)	Combination of A5.2 (1) (d), (e) & (f) – Test Report, Expert judgement & Other documentary evidence	Items 1, 2, 3, 4 & 5
NCC Volume One BP1.2	Combination of A2.2 (2) (a), (b) & (c)	Combination of A5.2 (1) (d), (e) & (f) – Test Report, Expert judgement & Other documentary evidence	Items 1, 2, 3, 4 & 5
NCC Volume One FP1.4	Combination of A2.2 (2) (a), (b) & (c)	Combination of A5.2 (1) (d) & (e) – Test Report & Expert judgement	Items 10, 11, 12 & 13
NCC Volume Two P2.2.2	Combination of A2.2 (2) (a), (b) & (c)	Combination of A5.2 (1) (d) & (e) – Test Report & Expert judgement	Items 10, 11, 12 & 13
NCC Volume One B1.4 (e)	Combination of A2.3 (2) (a) & (b)	Combination of A5.2 (1) (e) & (f) – Expert judgement & Other documentary evidence	Items 1, 2, 3, 4 & 5
NCC Volume Two 3.0.4 (j)	Combination of A2.3 (2) (a) & (b)	Combination of A5.2 (1) (e) & (f) – Expert judgement & Other documentary evidence	Items 1, 2, 3, 4 & 5
NCC Volume One CL.9	Combination of A2.3 (2) (a) & (b)	Combination of A5.2 (1) (d) & (e) – Test Report & Expert judgement	Items 6, 7, 8 & 9

**B2 Reports**

The following reports have been used as evidence to determine compliance with NCC 2019:

Ref	Author	Reference	Date / Rev	Description	NATA Registration
1	FVA	VITRADUAL Technical Manual	March 2020	Client published technical & installation manual	-
2	FVA	VITRAFIX Accessories Brochure	March 2020	Client published approved accessories	-
3	ENERTREN	FAR-106 Vitradual Structural Design	12 Dec 2019	Structural design report	-
4	ENERTREN	FAR 092 Span Tables	23 Jan 2019	Product span tables	-
5	SGS, LMATS & MechTest	N-0519-921 / LW19-1851CA / R819-1970-01	25 Oct 2019	Chemical & Mechanical test reports	-
6	CSIRO	FNC 11690	21 Jun 2016	Fire test report	165
7	AWTA	16-002875	7 Jun 2016	Fire test report	1356
8	RED Fire Consultants	1919-00103-v2	27 Mar 2020	Fire compliance report	-
9	Warrington Fire UK	WF 400695v2	5 Jun 2019	Fire classification report	-
10	BoKE Facades	FVA Cladding Products – Vitradual	27 Aug 2018	Weathertightness assessment report	UKAS – 0249
11	FacadeLab	Test report: 18-02	20 Apr 2018	Weathertightness test report	IANZ – 1091
12	VIPAC	308-19-0059-TRP-6774697-1	1 Apr 2020	Weathertightness test report	676
13	VIPAC	308-19-0059-TRP-6774698-0	2 Apr 2020	Weathertightness test report	676

The Certificate Holder has chosen not to make the above identified evidence of compliance publicly available, due to the documents being considered commercial in confidence.

End of Certificate.

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Thanks to Patrick Cameron for his clarification on this matter, below:

*"my view is that the testing requirements and dates described under (a)-(c) of the Product Use Ban only apply to 'the building product' which are noted in the ban as Aluminium Composite Panels (ACPs) with a core comprised of greater than 30 per cent polyethylene (PE) by mass. As Vitradual comprises a solid aluminium panel with a prefinished coating, it is not deemed an ACP and therefore the AS 1530.1 Test Report does not need to be dated on or after 1 July 2017"*

#### **BUILDING PRODUCT USE BAN**

##### **NOTICE UNDER SECTION 9(1) OF THE *BUILDING PRODUCTS (SAFETY) ACT 2017***

I, Rosemary Ann Webb, Commissioner for Fair Trading, Department of Finance, Services and Innovation:

**PROHIBIT** the use of aluminium composite panels (ACP) with a core comprised of greater than 30 per cent polyethylene (PE) by mass ('the building product') in any external cladding, external wall, external insulation, façade or rendered finish in:

- Class 2, 3 and 9 buildings with a rise in storeys of three or more and Class 5, 6, 7 and 8 buildings with a rise in storeys of four or more (Type A construction as defined in the Building Code of Australia); and
- Class 2, 3 and 9 buildings with a rise in storeys of two or more and Class 5, 6, 7 and 8 buildings with a rise in storeys of three or more (Type B construction as defined in the Building Code of Australia),

subject to the following exceptions:

**Disclaimer:** This article is not to be taken out of its context. It is general in nature and does not relate to any particular site. You are strongly advised to seek independent town planning or legal advice for your site and not to rely on the opinion of this article or any comments within.

Please also note the any images above do not relate to any project, they are for a visual representation to assist in understanding my enquiry.

Kind Regards

Firas Naji