

**Certification Body:** 

CERTIFICATION

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### **Certificate Holder:**



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Certificate number: CM40323

#### THIS IS TO CERTIFY THAT

# **Orange Board® Cladding System**

Type and/or use of product: Description of product:

The Orange Board® Cladding System is used as a direct fixed or cavity External Insulated Finishing Systems (EIFS) in Class 1 and 10 buildings for steel or timber frames.

The Orange Board® Cladding System consists of Orange Expanded Polystyrene (EPS) M Grade panels and proprietary components installed as a direct fixed or cavity wall system. Refer A2

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

**BCA 2022** 

	Volume One	Volume Two	
Performance Requirement(s):	Not Applicable	H1P1(1)&(2)(c)	Structural stability and resistance.
		H2P2	Weatherproofing – Subject to Limitation and Condition 2.
Deemed-to-Satisfy Provision(s):	Not Applicable	H4D9	Condensation and water vapour management – Subject to $\it Limitation$ and $\it Condition$ 5.
		H6D2(1)(b)(i)	Energy Efficiency – External Walls. Must be used in conjunction with other building elements to achieve a Total R Value.
		H7D4	Construction in bushfire prone areas – Contributes to satisfying the NCC Performance Requirements for the construction of buildings in bushfire prone areas up to BAL A-29 Subject to <i>Limitation and Condition 4</i> .
State or territory variation(s):	Not Applicable	H4D9 TAS, H6D2 \	VIC, H7D4 (NSW, QLD, SA)

Richard Donarski – CMI

Don Grehan – Unrestricted Building Certifier

**Date of issue:** 23/09/2024

Date of expiry:

23/09/2027

ABC



Certificate number: CM40323-I02-R00

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# **Certificate of Conformity**

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

## Limitations and conditions:

Building classification/s:

Class 1 & 10a

- 1. Construction shall be in strict accordance with the Ausblox Orange Board Technical Data Manual Rev 4.1 September 2024
- 2. To satisfy H2P2 via verification, the relevant design is required to meet the criteria of H2V1 to the satisfaction of the Appropriate Authority as defined by the NCC. The site specific building must;
  - (i) has a risk score of 20 or less, when the sum of all risk factor scores are determined in accordance with Table H2V1a; and
  - (ii) is not subjected to an ultimate limit state wind pressure or more than 2.5kPa; and
  - (iii) includes only windows that comply with AS 2047
  - Compliance with Weatherproofing is limited to the tested specimen, deviations from this specimen, is subject to site specific design and approval by the regulatory authority. Wall Wrap compliant with water barrier classification AS/NZS 4200.1:2017 must be installed directly behind AUSBLOX Orange Board® panels. Installation of wall wrap must comply with AS/NZS 4200.2:2017.
- 3. This product has not been tested to AS 1530.1-1994 and cannot be considered a non-combustible product.
- 4. In order to maintain compliance with BAL-29, AUSBLOX Orange Board® render must be used and applied at a minimum thickness of 8mm. The PVC Beading is must not be used for in BAL 12.5 BAL 29 applications. It is also the responsibility of the Building Designer to ensure compliance is achieved in accordance with AS 3959:2018.
- 5. Compliance with H4D9 of Vol 2 of the BCA for Condensation Management requires a pliable building membrane complying with AS/NZS 4200.1:2017 must be installed in accordance with AS 4200.2:2017 to separate the wall cladding panels from any water sensitive materials as shown in Ausblox Orange Board Technical Data Manual Rev 4.1 September2024.
- 6. In all installations, the minimum clearance between the underside of panel and the adjoining surface level below must comply with the specifications in Part 7.5.7 of the ABCB Housing Provisions.
- 7. The Orange Board® Cladding System has not been tested and certified for impact loading from windborne debris in Region C and D as denoted in AS 1170.2:2021. The building designer should take into consideration internal pressure resulting from dominant openings.
- 8. Building height to eaves and ridge up to 10m, Limited to Terrain Category 1 to 3 (AS 1170.2:2021 or AS 4055:2021).
- 9. Vertical expansion joint spacing not to exceed 5 metres where the wall length is greater than 8 metres. Joints are placed to align with large door and window openings and internal corners. Double studs are necessary at all vertical expansion joints. Horizontal expansion joint spacing not to exceed 3 metres. Expansion joints must occur where AUSBLOX Orange Board ® meets other substrates/cladding materials.
- 10. The Orange Board® Cladding System must be fixed to a structurally adequate external wall frame in accordance with the appropriate span tables in section A3. The structural support members are designed and engineered separately as per project requirements by building designers and engineers.
- 11. The Orange Board® Cladding System must incorporate either a timber frame constructed in accordance with AS 1684 series; or a cold-formed steel frame constructed in accordance with NASH Standard for Residential and Low-rise Steel Framing, Part 1: Design Criteria, or AS 3623-1993 (R2018) Domestic Metal Framing; or Framework compliant with other standards as applicable.
- 12. The use of the certified product/system is subject to these Limitations and Conditions and must be read in conjunction with the Scope of Certification below.

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 transferrable to a manufacturer not listed on Appendix A of this certificate.



Only criteria as identified within this Certificate of Conformity can be used for CodeMark certification claims. Where other claims are made in a client's Installation Manual, Website or other documents that are outside the criteria on this Certificate of Conformity, such criteria cannot be used or claimed to meet the requirements of this CodeMark certification.

The NCC defines a Performance Solution as one that complies with the Performance Requirements by means other than a Deemed-to-Satisfy Solution. A Building Solution that relies on a CodeMark Certificate of Conformity that certifies a product against the Performance Requirements cannot be considered as Deemed-to-Satisfy Solution.

This Certificate of Conformity may only relate to a part of a Performance Solution. In these circumstances other evidence of suitability is needed to demonstrate that the relevant Performance Requirements have been met. The relevant provisions of the Governing Requirements in Part A of the NCC will also need to be satisfied.

This Certificate of Conformity is issued based on the evidence of compliance as detailed herein. Any deviation from the specifications contained in this Certificate of Conformity is outside of this document's scope and the installation of the certified product will not be covered by this Certificate of Conformity.

**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.

When using the CodeMark logo in relation to or on the product/system, the Certificate Holder makes a declaration of compliance with the Scope of Certification and confirms that the product is identical to the product certified herein. In issuing this Certificate of Conformity, CMI Certification Pty Ltd (CMI) has relied on the experience and expertise of external bodies (laboratories and technical experts).

Nothing in this document should be construed as a warranty or guarantee by CMI, and the only applicable warranties will be those provided by the Certificate Holder.



#### APPENDIX A – PRODUCT TECHNICAL DATA

# A1 Type and intended use of product

As per page 1.

# **A2** Description of product

Orange Board® Cladding System consists of closed cell orange Expanded Polystyrene (EPS) M Grade panels System panels 2500mm x 1200mm or 5000mm x 1200mm and thickness of 75mm or 100mm.

# Other Orange Board® Cladding System Components:

AUSBLOX Orange Board® Dry Mix Render or	Cement based, polymer modified render containing washed and grade	d medium silica sand, acrylic powder and proprietary additives.			
equivalent acrylic render system.	Equivalent acrylic render system must be approved by manufacturer for use on EPS / Orange Board cladding.				
AUSBLOX Orange Board® Primer/Sealer or	Applied to AUSBLOX Orange Board® Dry Mix Render.				
equivalent Primer/Sealer system.	Equivalent a Primer/Sealer system must be approved by manufacturer for use on EPS / Orange Board cladding.				
Bosman PU adhesive	Applied between AUSBLOX Orange Board® joints				
PVC or Aluminium Beading Applied to corners and exposed edges. PVC beading not to be used in BAL 12.5 – BAL 29 application.					
Aluminium Starter Channels	Including drainage weep holes				
Mall Mran /Duilding Mambrana	Flexible sarking membrane (wall wrap) materials to comply with AS/NZS 4200.1:2017, classified as a Water Barrier and achieve a Flammability Index of				
Wall Wrap /Building Membrane	"Low" or < 5 (when tested to AS 1530.2-1993) installed in accordance with AS/NZS 4200.2:2017.				
Glassfibre Mesh	Alkali resistant 160gm/m² (5mm x 5mm) woven fibreglass mesh				
Sika® Multiseal or equivalent	Sika® Multiseal Sealant or equivalent self-adhesive, rubber modified bituminous sealing tape laminated with an aluminium foil on the upper side.				
Flashing Tape	Self-adhesive flashing tape				
Screw (75mm Panel)	Timber Frame - 10G x 105mm CSK Head Coarse Ribbed Class 3/4	Steel Frame - 10G x 90mm Wing Tek Class 3/4			
Screw (100mm Panel)	Timber Frame - 10G x 125mm CSK Head Coarse Ribbed Class 3/4	Steel Frame - 10G x 115mm Wing Tek Class 3/4			
Washer	40mm dia. plastic AUSBLOX Orange Board Washer				

# **A3 Product specification**

#### Structure

### Stud & Fastener Spacing - AS 4055:2021

	Non-Cyclonic Regions (A&B)					Cyclonic Regions (C&D)				
Wind Category	N1	N2	N3	N4	N5	N6	C1	C2	C3	C4
Panel Thickness	Panel Thickness 75mm or 100mm		75mm or 100mm							
Stud Spacing 450 or 600mm			450mm		300mm		300mm			
	300mm	300mm	300mm	200mm	200mm	200mm	200mm	200mm	200mm	200mm
Eastoner Specing	(150mm at	(150mm at	(150mm at	(150mm at	(150mm at	(150mm at	(150mm at	(150mm at	(150mm at	(150mm at
Fastener Spacing	perimeter off	perimeter off	perimeter off	perimeter off	perimeter off	perimeter off	perimeter off	perimeter off	perimeter off	perimeter off
	wall)	wall)	wall)	wall)	wall)	wall)	wall)	wall)	wall)	wall)
Number of	12	12	12	18	18	18	18	18	18	18
Fasteners	12	12	12	10	10	10	10	10	10	18

Source: Clarkson Consulting Services Pty Ltd; Report 240909.R4.0; AUSBLOX Orange Board Compliance Report; Dated 09/09/2024 and Ausblox Orange Board Technical Data Manual Rev 4.1 September 2024

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### Bushfire

Testing has been conducted in accordance with AS 1530.8.1:2007 and achieved a BAL-29 rating.

Source: Exova Warringtonfire; Report 2715300.1; Bushfire resistance test of an external wall system in accordance with AS 1530.8.1:2007; Dated 31/07/2012.

## **Thermal**

Total R Value of Orange Board® Cladding System - Direct Fix				
Danal Thiskness (mm)	Total R Value	Total R Value		
Panel Thickness (mm)	Summer (m <sup>2</sup> K/W)	Winter (m <sup>2</sup> K/W)		
75	2.48	2.61		
100	3.17	3.32		

Source: James Fricker Pty Ltd; R value calculation report i336a to AS/NZS 4859 Parts 1 & 2:2018; Dated 21/05/2019.

# Weatherproofing

### **Batten Cavity System**

Testing was conducted in accordance with AS/NZS 4284:2008 and BCA Verification Methods for Batten Cavity EIFS Cladding System.

Nominated serviceability limit state pressures: + 2500 Pa and -2500 Pa

Test Type		Criteria		Results		
Static Pressure Wind Load	Positive and negative serviceability limit state pressures of 2500 Pa were applied to the external face of the specimen for periods of 1 minute each.			Pass The loads were sustained and there was no visible evidence any cracking in the cladding		
Statis Pressure Water Test	Statio @ 200/	75000	Duration 15 Minutes	Pass		
(Clause 8.5 of AS/NZS 4284:2008)	Static @ 30%	750Pa	Duration 15 Minutes	No leakage to the indoor side of the vapour barrier of the cladding system was observed during the test.		
Cyclic Procesure Water Tost	Cyclic @ 15 – 30%	375 – 750 Pa	Duration 5 Minutes.	Pass		
Cyclic Pressure Water Test	Cyclic @ 20 – 40%	500 – 1000 Pa	Duration 5 Minutes.	No leakage to the indoor side of the vapour barrier of the		
(Clause 8.6 of AS/NZS 4284:2008)	Cyclic @ 30 – 60%	750 – 1500 Pa	Duration 5 Minutes.	cladding system was observed during the test.		
Cyclic Pressure Water Test with 6mm				Pass  No leakage to the indoor side of the vapour barrier of the		
Holes in cladding	Cyclic @ 30 – 60%	750 – 1500 Pa	Duration 5 Minutes.	cladding system was observed during the test. Some water wa		
(Clause 8.6 of AS/NZS 4284:2008)				observed on the side of the window frame however this wate was contained in the flashing details at the sill of the window		
Static Pressure Water Test with Lining				Pass		
Removed.	Static @ 30%	50Pa	Duration 15 Minutes	No leakage to the indoor side of the vapour barrier of the		
(Clause 8.5 of AS/NZS 4284:2008)				cladding system was observed during the test.		

# Weatherproofing

## **Direct Fixed System**

Testing has been conducted in accordance with AS/NZS 4284:2008 as a Direct Fixed System. Nominated serviceability limit state pressure +5500 Pa and -7200 Pa.

Source: Clarkson Consulting Services Pty Ltd; Report 230426 R3.0 dated 26/04/2023 and VIPAC; Report 30B-11-0103-TRP-598049-0; Direct Fixed to AS/NZS 4284:2008, dated 20 May 2011.



# A4 Manufacturer and manufacturing plant(s)

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This field is optional. Contact Certificate Holder for details.

### A5 Installation requirements

The Orange Board® Cladding System must be installed in accordance with the Ausblox Orange Board Technical Data Manual Rev 4.1 September 2024.

#### A6 Other relevant technical data

No other relevant technical data.

#### **APPENDIX B – EVALUATION STATEMENTS**

#### **B1** Evaluation methods

- 1. Energy Efficiency Provisions A5G3(1)(e). Reports from a professional engineer.
- 2. Fire Safety Provisions A5G3(1)(d)&(e). Reports from Accredited Testing Laboratories and a professional engineer.
- 3. Structural Resistance Provisions A5G3(1)(e). Reports from a professional engineer.
- 4. Weatherproofing Provision A5G3(1)(d)&(e). Reports from Accredited Testing Laboratories and a professional engineer.

### **B2** Reports

- 1. Clarkson Consulting Services Pty Ltd; Report 230426\_R3.0; AUSBLOX Orange Board Compliance Report; Dated 26/04/2023. Report outlines compliance with H1P1(1)&(2)(c), H2P2, H4D9, H7D4 & H6D2(1)(b)(i).
- 2. Clarkson Consulting Services Pty Ltd; Report 240909.R4.0; AUSBLOX Orange Board Compliance Report; Dated 09/09/2024. Report outlines compliance with H1P1(1)&(2)(c), H2P2, H4D9, H7D4 & H6D2(1)(b)(i).
- 3. James Fricker Pty Ltd; R value calculation report i336a to AS/NZS 4859 Parts 1 & 2:2018; Dated 21/05/2019. Report provides R-Values for compliance with H6D2(1)(b)(i).
- 4. Exova Warringtonfire Aus Pty Ltd; NATA Accreditation No. 3277; Report 2715300.1; Bushfire resistance test of an external wall system in accordance with AS 1530.8.1:2007; Dated 31/07/2012. Report provides evidence for compliance with H7D4.
- 5. VIPAC; Report 30B-12-0118-TRP-332220-2 to AS 4040.2:1992; Dated 14/05/2013. Report supports compliance with H1P1(1)&(2)(c).
- 6. VIPAC; Report 30B-11-0103-TRP-598261-0 to AS 4040.3:1992; Dated 05/06/2011. Report supports compliance with H1P1(1)&(2)(c).
- 7. VIPAC; Report 30B-11-0103-TRP-598049-0; Direct Fixed to AS/NZS 4284:2008; Dated 20 May 2011. Report supports compliance with H2P2.
- 8. Ian Bennie and Associates Pty Ltd; NATA Accreditation No. 2371; Report No: 2015-108-S1-R; Testing in accordance with BCA Verification Methods; Dated 02/09/2019. Report supports compliance with H2P2.

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