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Certificate number: CM40239

THIS IS TO CERTIFY THAT

LuxeWall™ Flameguard™

Type and/or use of product:

External fire rated wall.

Description of product:

LuxeWall™ Flameguard™ is a Mineral Wool insulated infill of the corrugation and COLORBOND® steel skins fire rated external wall system which can be fixed from the internal side and thus be used on boundary walls with limited access.

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

BCA 2022

	Volume One	Volume Two
Performance Requirement(s):	B1P1(1),(2)(a),(b), (c) Structural Reliability	H1P1(1),(2)(a),(b), (c) & (3) Structural stability and resistance to actions
	F8P1 Condensation and water vapour management	H4P7 Condensation and water vapour management
Deemed-to-Satisfy Provision(s):	C2D2(2) Fire-resistance of building elements – Can be used where an FRL 60/60/60 or 90/90/90 is required. Refer A3.	H3D2(1)(g) Non-combustible building elements
	C2D10(6)(g) Non-combustible building materials – Refer <i>limitation and condition 1</i> .	H2D6(4) Weatherproofing – Roof and wall cladding
	F3D5(1)(c) Weatherproofing – Wall cladding	H3D3 Fire-resistance of building elements – Can be used where an FRL 60/60/60 or 90/90/90 is required - Refer A3.
	G5D3 Construction in bushfire prone areas - Protection – External walls – BAL FZ	H6D2(1)(b)(i) Energy Efficiency – Contributes to the overall energy efficiency of the building - Refer A3
	J4D6 Energy Efficiency – Walls – Contributes to the overall energy efficiency of the building - Refer A3	H7D4 Bushfire areas – External walls - BAL FZ
State or territory variation(s):	G5D3 (NSW)	H7D4 (NSW, Qld, SA)

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


Richard Donarski – CMI


Don Grehan – Unrestricted Building Certifier

Date of issue: 01/03/2024

Date of expiry: 01/03/2027



Certificate of Conformity

Limitations and conditions:

1. Where LuxeWall™ FlameGuard™ wall panels are used externally on a building of Type A or B construction, the wall panels must be fixed in accordance with C2D15 to comply with C2D10(6)(g).
2. The LuxeWall™ Flameguard™ panels are limited to Australian wind regions A & B to AS/NZS 1170.2:2021 for Vol 1 and 'N' wind classes to AS 4055:2021 for Vol 2.
3. In the absence of site specific engineering advice, the LuxeWall™ Flameguard™ panels can be used in external situations in non-cyclonic areas only.
4. The wall panels will be limited by wind load shown in the manufacturer's specifications on the span certified for the product type, thickness, core density and fixing configuration as per the product's certified span tables referenced in A3 of this Certificate of Conformity.
5. To achieve FRL, the construction must be as described in A3 and the loadbearing capacity of the frame is limited to a maximum uniformly distributed load of 11kN/m. The requirements for all other installations are outside the scope of this certificate and subject to project specific engineering advice. The minimum fixing requirements are outlined in the Span Tables referenced in A3 of this Certificate of Conformity.
6. Construction methods for external walls required to be fire resisting in relation to Class 1 and 10 buildings and structures must comply with part H3D3 of the BCA Volume 2.
7. The structural support members are designed and engineered separately as per project requirements by building designers and engineers. The minimum fixing requirements are outlined in the Span Tables referenced in A3 of this Certificate of Conformity.
8. In all installations the minimum clearance between the underside of panel and the adjoining ground surface level below must comply with the specifications in Part 7.5.7 of ABCB Housing Provisions.
9. Condensation management compliance with F8P1 is satisfied through verification method F8V1. Compliance with H4P7 Condensation management is satisfied through verification method H4V5.
10. In order to maintain compliance with BAL, it is the responsibility of the Building Designer to ensure compliance is achieved in accordance with AS 3959-2018.
11. It is the responsibility of the architectural designer and engineering parties to ensure that the details in this Design and Installation Guide are appropriate for the intended application.
12. Other than the items and information listed, the remainder of the information contained in the product's literature is outside the scope of this certification.
13. 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.

Building classification/s:

Class 1,2,3,4,5,6,7,8,9 & 10

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

Core	Mineral Wool (MW)
Width (cover mm)	900 to 1200
Thickness (mm)	50, 75
Length	Up to 6.5m
External Material	0.6mm G300 COLORBOND® Steel
Internal Material	0.6mm G300 COLORBOND® Steel with HygienePlus®

Dimensions



Source: Certificate Holder

A3 Product specification

Structure In order to maintain compliance with structure, the following Span Tables must be referred to which have been certified by a licensed Professional Engineer in accordance with AS/NZS 1170.0, AS/NZS 1170.1, AS/NZS 1170.2, AS 4055 & AS 4040.1.

Document Name	Version
LuxeWall™ FG SPAN TABLES FOR WIND REGION A & B – NON-CYCLONIC (EXTERNAL WALL APPLICATIONS ONLY) Mineral Wool Core 0.6mm steel skins	1
LuxeWall™ FG Wall Span Table for Housing Application – 50mm Panel Mineral Wool Core 0.6mm Steel Skins – FRL Applications	1
LuxeWall™ FG Wall Span Table for Housing Application – 75mm Panel Mineral Wool Core 0.6mm Steel Skins – FRL Applications	1
LuxeWall™ FG Wall Span Table for Housing Application – 50mm Panel Mineral Wool Core 0.6mm Steel Skins	1
LuxeWall™ FG Wall Span Table for Housing Application – 75mm Panel Mineral Wool Core 0.6mm Steel Skins	1

Source: Bligh Tanner; Report Reference No. 2017.0493; Structural Assessment of Equitilt panels including LuxeWall FlameGuard; Dated 06/03/2023.

Condensation Management The LuxeWall™ FlameGuard™ has been assessed for Class 1a, 2, and 4 dwellings in line with the Verification Method F8V1 and H4V5 using WUFI Pro Software to perform hygrothermal modelling and found to comply with the mould growth index for Climate Zones 4 – 8 in North, South, East and West Orientations.

Source: BCA Energy Pty Ltd Reference No. 116984-NCC Condensation Management Luxewall FlameGuard Report-r3; NCC Condensation Management Report dated 15/02/2023.

Fire Hazard Properties	AS/NZS 1530.3-1999 Indices		
	Ignitability Index	0	Range 0-20
	Spread of Flame Index	0	Range 0-10
	Heat Evolved Index	0	Range 0-10
	Smoke Index	3	Range 0-10

Source: AWTA Test Report No. 7-565217-CQ dated 12/03/2009.

Non-Combustibility Each lamina of the LuxeWall™ Flameguard™ panels have been tested in accordance with AS 1530.1-1994 and is **NOT** deemed combustible.

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**Fire Resistance Level
(FRL)**

**Panel
Thickness**

LuxeWall™ Flameguard™ Wall System Options

**Fire rated
plasterboard
thickness**

FRL

50 and
75mm

- 90 mm or deeper MGP10 timber or 92 mm or deeper steel stud frames.
- Flameguard™ panel width can be either 900 mm or 1200 mm or a mixture.
- Optional external acrylic coating on Bondor Flameguard™ panels.
- Optional insulation in stud cavities.
- Optional Ametalin Silverwrap weather wrap or equivalent.
- Weather resistant fire rated sealants in fire side of inter-locking joints and perimeter edges of the Bondor Flameguard™ panels and metal capping over top of all panels.
- LuxeWall™ FlameGuard™ wall systems up to 12 m in height with the FlameGuard™ panel up to 6.5 m in height.
- Inclusion of PVC electrical conduits within wall cavity as optional. The conduits must not penetrate the Flameguard™ panels.
- Installation of a bath tap set and/or fire and acoustic rated wall boxes (maximum 94 mm wide × 50 mm) high incorporating face panels with:
 - single switch control;
 - single GPO
 - double switch control
 - double GPO
 - single data point

Note: all penetrations are to be located at least 100 mm away from the vertical studs

16mm

90/90/90*

13mm

60/60/60*

***Note:** The structural adequacy of the wall system is subject to sufficient structural capacity being provided to the supporting timber/steel frame and panel fixings by the structural design. The design structural engineer must ensure the timber/steel framing and panel fixings would have sufficient capacity to support the design actions applied to the wall system and panel weight for a period of 60 minutes and 90 minutes

Source: Exova Warringtonfire Report No. 55457600 R4.1 Fire assessment report, Dated 20/11/2023.

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Thermal & Energy Efficiency

LuxeWall™ Systems with Horizontal Tophats, Vapour Permeable Sarking & Plasterboard (steel framing)

	Insulation path Total R, m ² K/W		Overall Total R, m ² K/W		Product Declared R @ 23°C
	Summer	Winter	Summer	Winter	
50mm R1.24 LuxeWall™ Flameguard™ system with horizontal tophats, vapour permeable Sarking, 70mm non-reflective air space and steel studs at 600mm centres (10mm plasterboard)	R1.76	R1.87	R1.75	R1.85	1.20
75mm R1.87 LuxeWall™ Flameguard™ system with horizontal tophats, vapour permeable Sarking, 70mm non-reflective air space and steel studs at 600mm centres (10mm plasterboard)	R2.37	R2.51	R2.35	R2.49	1.85
50mm R1.24 LuxeWall™ Flameguard™ system with horizontal tophats, vapour permeable Sarking, 70mm R1.50 glasswool insulation and steel studs at 600mm centres (10mm plasterboard)	R3.04	R3.26	R2.80	R3.00	1.20
75mm R1.87 LuxeWall™ Flameguard™ system with horizontal tophats, vapour permeable Sarking, 70mm R1.50 glasswool insulation and steel studs at 600mm centres (10mm plasterboard)	R3.65	R3.90	R3.44	R3.67	1.85
50mm R1.24 LuxeWall™ Flameguard™ system with horizontal tophats, vapour permeable Sarking, 90mm R2.00 glasswool insulation and steel studs at 600mm centres (10mm plasterboard)	R3.52	R3.78	R3.16	R3.39	1.20
75mm R1.87 LuxeWall™ Flameguard™ system with horizontal tophats, vapour permeable Sarking, 90mm R2.00 glasswool insulation and steel studs at 600mm centres (10mm plasterboard)	R4.13	R4.42	R3.82	R4.08	1.85

LuxeWall™ Systems with Horizontal Tophats, Vapour Permeable Sarking & Plasterboard (pine framing)

	Insulation path Total R, m ² K/W		Overall Total R, m ² K/W		Product Declared R @ 23°C
	Summer	Winter	Summer	Winter	
50mm R1.24 LuxeWall™ Flameguard™ system with horizontal tophats, vapour permeable Sarking, 70mm non-reflective air space and pine studs at 600mm centres (10mm plasterboard)	R1.76	R1.87	R1.80	R1.91	1.20
75mm R1.87 LuxeWall™ Flameguard™ system with horizontal tophats, vapour permeable Sarking, 70mm non-reflective air space and pine studs at 600mm centres (10mm plasterboard)	R2.37	R2.51	R2.42	R2.55	1.85
50mm R1.24 LuxeWall™ Flameguard™ system with horizontal tophats, vapour permeable Sarking, 70mm R1.50 glasswool insulation and pine studs at 600mm centres (10mm plasterboard)	R3.04	R3.26	R2.91	R3.11	1.20
75mm R1.87 LuxeWall™ Flameguard™ system with horizontal tophats, vapour permeable Sarking, 70mm R1.50 glasswool insulation and pine studs at 600mm centres (10mm plasterboard)	R3.65	R3.90	R3.53	R3.76	1.85
50mm R1.24 LuxeWall™ Flameguard™ system with horizontal tophats, vapour permeable Sarking, 90mm R2.00 glasswool insulation and pine studs at 600mm centres (10mm plasterboard)	R3.52	R3.78	R3.34	R3.57	1.20
75mm R1.87 LuxeWall™ Flameguard™ system with horizontal tophats, vapour permeable Sarking, 90mm R2.00 glasswool insulation and pine studs at 600mm centres (10mm plasterboard)	R4.13	R4.42	R3.96	R4.22	1.85

- Notes:**
- The above shows determinations based upon AS/NZS 4859 Parts 1&2:2018, Thermal insulation materials for buildings. "Overall" results show reportable Total R after thermal bridging calculations.
 - Total Transmittance (U) can be calculated by $U=1/R$.
 - The requirements of Part 13.2.5(5) of the ABCB Housing Provisions and Volume One J3D6(1) do not apply to walls constructed using insulated sandwich panels.

Source: James Fricker Reports; i265LXwi011; Thermal Calculation of LuxeWall™ Flameguard™ Wall Panels on steel studs; Dated 07/09/2023 & Report i265LXw011; Thermal Calculation of LuxeWall™ Flameguard™ Wall Panels on pine timber studs; Dated 07/09/2023.

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A4 Manufacturer and manufacturing plant(s)

This field is optional. Contact the Certificate Holder for details.

A5 Installation requirements

To be installed in accordance with the [LuxeWall Installation Guide v 29 – 29042020](#) and for FRL applications refer [Technical Drawing LuxeWall-Flameguard 60 v4](#) or [Technical Drawing LuxeWall-Flameguard 90 v4](#). The minimum fixing requirements are outlined in the Span Tables referenced in A3 of this Certificate of Conformity.

Construction methods for external walls required to be fire resisting in relation to Class 1 and 10 buildings and structures must comply with Part H3D3 of the NCC Volume 2.

In order to maintain compliance with BAL, it is the responsibility of the Building Designer to ensure compliance is achieved in accordance with AS 3959-2018.

A6 Other relevant technical data

Acoustic Properties

Acoustic Opinion of Weighted Sound Reduction Index (R_w)

Wall System	Exterior cladding ¹	Connection between studs and exterior cladding	Studs	Insulation between studs ²	Interior lining	Total wall thickness	Weighted sound reduction index performance
1	50mm FlameGuard™	24mm steel top hat	90mm timber studs	-	13mm CSR Fyrcheck™	177mm	R _w ≥ 40
2	50mm FlameGuard™	24mm steel top hat	90mm timber studs	70mm Bradford™ Soundscreen™	13mm CSR Fyrcheck™	177mm	R _w ≥ 45

Notes:

1. FlameGuard™ build-up as provided by Bondor: 0.6mm thick steel faces(with a surface density of 5.1kg/m²)on either side of a mineral fibre core(with a density of 100kg/m³).
2. Bradford™Soundscreen™ density as provided by Bondor:25.71kg/m³.

Source: Renzo Tonin & Associates Reference No. MC637-01F01 Acoustic Opinion (r1) dated 9 May 2018.

APPENDIX B – EVALUATION STATEMENTS

B1 Evaluation methods

1. Condensation Management Provisions – A5G3(1)(e). Reports from an appropriately qualified person.
2. Fire Safety Provisions – A5G3(1)(d)&(e). Reports from Accredited Testing Laboratories and a professional engineer.
3. Structural Provisions – A5G3(1)(e). Reports from a professional engineer.
4. Thermal Provisions – A5G3(1)(e). Reports from a professional engineer.
5. Weatherproofing Provisions – A5G3(1)(e). Reports from a professional engineer.

B2 Reports

1. AWTA Textile Testing; NATA Accreditation No. 1356; Report No. 7-565217-CQ; Fire test in accordance with AS/NZS 1530.3-1999, Fire indices; Dated 13/03/2009. Report provide evidence for compliance with C2D10(6)(g).
2. BCA Energy Pty Ltd; Reference No: 116984-NCC Condensation Management LuxeWall FlameGuard Report -r3; NCC Condensation Management Report LuxeWall™ FlameGuard™ Product by Bondor; Dated 15/02/2023. Report confirms LuxeWall™ Flameguard™ complies with F8P1 and H4P7 in accordance with verification methods F8V1 and H4V5.
3. Bligh Tanner; Report Reference No. 2017.0493; Certification of LuxeWall Span Tables; Dated 06/03/2023. Report confirms compliance with B1P1(1),(2)(a),(b),(c), H1P1(1),(2)(a),(b),(c)&(3), H2D6(4) & F3D5(1)(c).
4. CSIRO; Accreditation no. 3632; Report No. FNC 0339; AS 1530.1-1994 testing of Flameguard mineral wool fibre board insulation; Dated 11/06/2004. Report supports compliance with C2D10(6)(g).
5. CSIRO; Accreditation no. 165; Report No. FNC12440; AS 1530.1-1994 testing of steel skins; Dated 27/08/2019. Report supports compliance with C2D10(6)(g).
6. Exova Warringtonfire; NATA Accreditation No. 3277; Report No. 41268000.4; Fire resistance test in accordance with AS 1530.4-2014, 60/60/60; Dated 21/02/2018. Report outlines FRLs achieved for LuxeWall™ Flameguard™ as required by C2D2(2) and H3D3 and where FRLs are required for compliance with bushfire claims of G5D3 & H7D4.
7. James M Fricker Pty Ltd; Report i265LXw011; Overall “Total R” (Thermally Bridged) Thermal Calculations To AS/NZS 4859 Parts 1 & 2:2018 Pine timber studs; Dated 07/09/2023. Report provides thermal performance values in accordance with the requirements of J4D6 and H6D2(1)(b)(i).
8. James M Fricker Pty Ltd; Report i265LXwi011; Overall “Total R” (Thermally Bridged) Thermal Calculations To AS/NZS 4859 Parts 1 & 2:2018 Steel studs; Dated 07/09/2023. Report provides thermal performance values in accordance with the requirements of J4D6 and H6D2(1)(b)(i).
9. Warringtonfire Australia Pty Ltd; NATA Accreditation No. 3277; Report No. 55457600 R4.1; Fire resistance test in accordance with AS 1530.4-2014; Dated 20/11/2023. Report outlines FRLs achieved for LuxeWall™ Flameguard™ as required by C2D2(2) and H3D3 and where FRLs are required for compliance with bushfire claims of G5D3 & H7D4.

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