

Certificate number: CM40239

**Certification Body:**

  
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**THIS IS TO CERTIFY THAT**

**LuxeWall® Flameguard®**

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

External fire rated wall.

**Description of product:**

LuxeWall® Flameguard® is an insulated, 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 2019 (Amdt. 1)**

|   | Volume One  | Volume Two   |
|---|---|--|
| <b>Performance Requirement(s):</b>      | BP1.1(a),(b)<br>(i),(ii),(iii)<br>FP1.4   | P2.1.1(a),<br>(b)(i),(ii),(iii)<br>P2.2.2  |
|   | Structural Reliability<br>Weatherproofing – Subject to <i>Limitation and Condition 7</i> .  | Structural Reliability<br>Weatherproofing – Subject to Limitation and Condition 7.   |
| <b>Deemed-to-Satisfy Provision(s):</b>  | C1.1(b)<br>C1.9(e)(vii)<br>C1.10(a)(ix)<br>G5.2<br>J1.5(a)  | 3.7.1.1(g)(i)<br>3.7.2.4<br>3.10.5.0<br>3.12.1.4(a)<br>3.12.1.6(a)   |
|   | Fire-resistance of building elements – Can be used where an FRL 60/60/60 or 90/90/90 is required. Refer A3.<br>Non-combustible building materials<br>Fire hazard properties – Spread-of-Flame Index 0, Smoke-Developed Index 3, Group number 1<br>Construction in bushfire prone areas - Protection – External walls – BAL FZ<br>Energy Efficiency - Walls – Contributes to the overall performance of the wall. Refer A3 | Non-combustible materials<br>Fire-resistance of building elements – Can be used where an FRL 60/60/60 or 90/90/90 is required - Refer A3.<br>Bushfire areas – External walls - BAL FZ<br>Energy Efficiency – External Walls – Contributes to the overall performance of the wall. Refer A3<br>Energy Efficiency– Attached Class 10a buildings - Contributes to the overall performance of the wall. Refer A3 |
| <b>State or territory variation(s):</b> | G5.2 (NSW)  | 3.10.5.0 (NSW, Qld), Part 3.12 (NSW, NT, SA, Qld, Tas, ACT)  |

**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:** 25/03/2021

**Date of expiry:** 25/03/2024



## Limitations and conditions:

1. 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.
2. Construction methods for external walls required to be fire resisting in relation to Class 1 and 10 buildings and structures must comply with part 3.7.2.4 of the NCC Volume 2.
3. 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.
4. In the absence of site specific engineering advice, the LuxeWall<sup>®</sup> Flameguard<sup>®</sup> panels can be used in external situations in non-cyclonic areas only.
5. The LuxeWall<sup>®</sup> Flameguard<sup>®</sup> panels are limited to Australian wind regions A & B to AS/NZS 1170.2:2011 (R2016) for Vol 1 and 'N' wind classes to AS 4055:2012 for Vol 2.
6. The metal 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. Refer A3 below.
7. To satisfy FP1.4 & P2.2.2 via verification, the relevant design is required to meet the criteria of FV1.1 and/or V2.2.1 to the satisfaction of the Appropriate Authority as defined by the NCC. The site specific building must;
  - (a)(i) have a risk score of 20 or less, when the sum of all risk factor scores is determined in accordance with Table FV1.1/V2.2.1a; and
  - (a)(ii) not be subjected to an ultimate limit state wind pressure of more than 2.5kPa; and
  - (a)(iii) include only windows that comply with AS 2047.Compliance with Weatherproofing is limited to the tested specimen detailed in A3, deviations from this specimen, is subject to site specific design and approval by the regulatory authority.
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 3.5.4.7 of Volume 2 of the NCC.
9. The structural support members are designed and engineered separately as per project requirements by building designers and engineers.
10. The weatherproofing systems for all panels are dependent on window, door and other penetration frames being designed, constructed and installed in accordance with manufacturer's recommendations to enable adequate flashing and sealing to the building.
11. No assessment has been undertaken on the product for Part F6 of Vol 1 or Part 3.8.7 of Vol 2 of the 2019 BCA for Condensation management. A pliable building membrane complying with AS/NZS 4200.1-2017 must be installed in accordance with AS/NZS 4200.2-2017 to separate the wall cladding panels from any water sensitive materials.
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.

## 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](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 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. This may result in the product being classified as a non-conforming building product.

**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, CertMark International 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 |
|---|---------|
| <a href="#">LuxeWall® FG SPAN TABLES FOR WIND REGION A &amp; B – NON-CYCLONIC (EXTERNAL WALL APPLICATIONS ONLY) Mineral Wool Core 0.6mm steel skins</a> | 1       |
| <a href="#">LuxeWall® FG Wall Span Table for Housing Application – 50mm Panel Mineral Wool Core 0.6mm Steel Skins – FRL Applications</a>                | 1       |
| <a href="#">LuxeWall® FG Wall Span Table for Housing Application – 75mm Panel Mineral Wool Core 0.6mm Steel Skins – FRL Applications</a>                | 1       |
| <a href="#">LuxeWall® FG Wall Span Table for Housing Application – 50mm Panel Mineral Wool Core 0.6mm Steel Skins</a>                                   | 1       |
| <a href="#">LuxeWall® FG Wall Span Table for Housing Application – 75mm Panel Mineral Wool Core 0.6mm Steel Skins</a>                                   | 1       |

Source: Bligh Tanner; Report Reference No. 2017.0493; Structural Assessment of Equitilt panels including LuxeWall FlameGuard; Dated 26/03/2021.

|                               |                            |   |            |
|-------------------------------|----------------------------|---|------------|
| <b>Fire Hazard Properties</b> | 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.

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

| Fire Resistance Level (FRL) | FRL      | LuxeWall® Flameguard® Wall System Options   |
|-----------------------------|----------|---|
|                             | 90/90/90 | 1) As tested LuxeWall® Flameguard® wall including - <ul style="list-style-type: none"> <li>• From 50mm to 150mm thickness LuxeWall® Flameguard® panels</li> <li>• Optional installation of 13mm in lieu as tested 16mm thickness fire rated plasterboard with revised overall fire resistance performance for FRL 60/60/60 wall systems</li> <li>• With or without glass wool insulation in stud cavities;</li> <li>• Installation of weather wrap of Ametalin Silverwrap or other brands; the weather wrap may be optionally removed;</li> <li>• 90mm or deeper timber or equivalent steel stud frames;</li> <li>• LuxeWall® Flameguard® panel widths ranging from 900mm to 1200mm;</li> <li>• With or without external acrylic coating on LuxeWall® Flameguard® panels;</li> <li>• Inclusion of weather resistant fire rated sealants in fire side of inter-locking joints and perimeter edges of the LuxeWall® Flameguard® panels and metal capping over top of all panels;</li> <li>• Optional installation of electrical conduits fixed onto the steel stud frames;</li> <li>• Installation of the LuxeWall® Flameguard® wall system up to 12 metres in height;</li> <li>• Penetrations in the wall system on the unexposed side for:               <ol style="list-style-type: none"> <li>a) installation of Clipsal 157/1F fire and acoustic rated wall boxes incorporating face panels with; single switch control; single GPO; double switch control; double GPO; single data point.</li> <li>b) installation of a bath tap set (note that all penetrations are to be located at least 100mm away from the main vertical studs)</li> </ol> </li> </ul> |
|                             | 60/60/60 | 2) As per option (1), but without fire rated joint sealants in the perimeter and inter-locking joints of LuxeWall® Flameguard® panels. Capping at top of panel is not required except for top of parapet wall exposed to weather.   |
|                             | 60/60/60 | 3) As per option (2) except that the internal cladding be replaced with 13mm fire rated plasterboard.   |

**Source:** Exova Warringtonfire Report No. 55457600 R3.1 Fire assessment report, Dated 12/07/2018.

## Thermal & Energy Efficiency

| LuxeWall® Systems with Horizontal Tophats, Vapour Permeable Sarking & Plasterboard (steel framing)  | Insulation path             |        | Overall                     |        |
|---|-----------------------------|--------|-----------------------------|--------|
|   | Total R, m <sup>2</sup> K/W |        | Total R, m <sup>2</sup> K/W |        |
|   | Summer                      | Winter | Summer                      | Winter |
| 50mm R1.25 LuxeWall® Flameguard® system with horizontal tophats, vapour permeable Sarking, 70mm non-reflective air space and steel studs at 600mm centres (10mm plasterboard)   | R1.8                        | R1.9   | R1.8                        | R1.9   |
| 75mm R1.88 LuxeWall® Flameguard® system with horizontal tophats, vapour permeable Sarking, 70mm non-reflective air space and steel studs at 600mm centres (10mm plasterboard)   | R2.4                        | R2.5   | R2.4                        | R2.5   |
| 50mm R1.25 LuxeWall® Flameguard® system with horizontal tophats, vapour permeable Sarking, 70mm R1.50 glasswool insulation and steel studs at 600mm centres (10mm plasterboard) | R3.0                        | R3.3   | R2.8                        | R3.0   |
| 75mm R1.88 LuxeWall® Flameguard® system with horizontal tophats, vapour permeable Sarking, 70mm R1.50 glasswool insulation and steel studs at 600mm centres (10mm plasterboard) | R3.7                        | R3.9   | R3.4                        | R3.7   |
| 50mm R1.25 LuxeWall® Flameguard® system with horizontal tophats, vapour permeable Sarking, 90mm R2.00 glasswool insulation and steel studs at 600mm centres (10mm plasterboard) | R3.5                        | R3.8   | R3.2                        | R3.4   |
| 75mm R1.88 LuxeWall® Flameguard® system with horizontal tophats, vapour permeable Sarking, 90mm R2.00 glasswool insulation and steel studs at 600mm centres (10mm plasterboard) | R4.1                        | R4.4   | R3.8                        | R4.1   |

| LuxeWall® Systems with Horizontal Tophats, Vapour Permeable Sarking & Plasterboard (pine framing)  | Insulation path             |        | Overall                     |        |
|--|-----------------------------|--------|-----------------------------|--------|
|  | Total R, m <sup>2</sup> K/W |        | Total R, m <sup>2</sup> K/W |        |
|  | Summer                      | Winter | Summer                      | Winter |
| 50mm R1.25 LuxeWall® Flameguard® system with horizontal tophats, vapour permeable Sarking, 70mm non-reflective air space and pine studs at 600mm centres (10mm plasterboard)   | R1.8                        | R1.9   | R1.8                        | R1.9   |
| 75mm R1.88 LuxeWall® Flameguard® system with horizontal tophats, vapour permeable Sarking, 70mm non-reflective air space and pine studs at 600mm centres (10mm plasterboard)   | R2.4                        | R2.5   | R2.4                        | R2.6   |
| 50mm R1.25 LuxeWall® Flameguard® system with horizontal tophats, vapour permeable Sarking, 70mm R1.50 glasswool insulation and pine studs at 600mm centres (10mm plasterboard) | R3.0                        | R3.3   | R2.9                        | R3.1   |
| 75mm R1.88 LuxeWall® Flameguard® system with horizontal tophats, vapour permeable Sarking, 70mm R1.50 glasswool insulation and pine studs at 600mm centres (10mm plasterboard) | R3.7                        | R3.9   | R3.5                        | R3.8   |
| 50mm R1.25 LuxeWall® Flameguard® system with horizontal tophats, vapour permeable Sarking, 90mm R2.00 glasswool insulation and pine studs at 600mm centres (10mm plasterboard) | R3.5                        | R3.8   | R3.3                        | R3.6   |
| 75mm R1.88 LuxeWall® Flameguard® system with horizontal tophats, vapour permeable Sarking, 90mm R2.00 glasswool insulation and pine studs at 600mm centres (10mm plasterboard) | R4.1                        | R4.4   | R4.0                        | R4.2   |

- 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  $U=1/R$ .

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## Weatherproofing

Vertical panel configuration installed as a Direct Fix System in accordance with Verification Methods V2.2.1 & FV1 with AS/NZS 4284:2008. Nominated serviceability limit state pressures: +550 Pa and -830 Pa. Weatherproofing requirements are detailed in the [LuxeWall Installation Guide v 29 – 29042020](#) and for FRL applications refer [Technical Drawing LuxeWall-Flameguard 60 v1](#) or [Technical Drawing LuxeWall-Flameguard 90 v1](#). The minimum fixing requirements are outlined in the Span Tables referenced in A3 of this Certificate of Conformity.

**Source:** Ian Bennie And Associates; Accreditation No. 2371; Report No.2019-020-S6; NCC-2019 Verification Methods FV1 & V2.1.1 in accordance with AS/NZS 4284:2008; Dated 10/10/2019.

## A4 Manufacturer and manufacturing plant(s)

This field is optional. Contact Certificate Holder for manufacturing locations.

## 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 v1](#) or [Technical Drawing LuxeWall-Flameguard 90 v1](#). 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 3.7.2.4 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<sub>w</sub>)

| Wall System | Exterior cladding <sup>1</sup> | Connection between studs and exterior cladding | Studs             | Insulation between studs <sup>2</sup> | 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 <sub>w</sub> ≥ 40                        |
| 2           | 50mm FlameGuard®               | 24mm steel top hat                             | 90mm timber studs | 70mm Bradford™ Soundscreen™           | 13mm CSR Fyrcheck™ | 177mm                | R <sub>w</sub> ≥ 45                        |

Notes:

1. FlameGuard® build-up as provided by Bondor: 0.6mm thick steel faces (with a surface density of 5.1kg/m<sup>2</sup>) on either side of a mineral fibre core (with a density of 100kg/m<sup>3</sup>).
2. Bradford™ Soundscreen™ density as provided by Bondor: 25.71kg/m<sup>3</sup>.

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

## APPENDIX B – EVALUATION STATEMENTS

### B1 Evaluation methods

1. Fire Safety Provisions – A5.2(1)(d)&(e). Reports from Accredited Testing Laboratories and a professional engineer.
2. Structural Provisions – A5.2(1)(e). Reports from a professional engineer.
3. Thermal Provisions – A5.2(1)(e). Reports from a professional engineer.
4. Weatherproofing Provisions – A5.2(1)(d)&(e). Reports from Accredited Testing Laboratories and a professional engineer.

### B2 Reports

1. CSIRO; Accreditation no. 3632; Report No. FNC 0339; AS 1530.1-1994 testing of Flameguard mineral wool fibre board insulation; Dated 11/06/2004.
2. CSIRO; Accreditation no. 165; Report No. FNC12440; AS 1530.1-1994 testing of steel skins; Dated 27/08/2019.
3. Acronem Consulting Australia Pty Ltd, LuxeWall NCC 2019 FV1 & V2.2.1 Weatherproofing Testing results; Dated 14/11/2019.
4. 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.
5. Bligh Tanner; Report Reference No. 2017.0493; Certification of LuxeWall Span Tables; Dated 26/03/2021.
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.
7. Ian Bennie And Associates; Accreditation No. 2371; Report No.2019-020-S6; NCC-2019 Verification Methods FV1 & V2.1.1 in accordance with AS/NZS 4284:2008; Dated 10/10/2019.
8. James M Fricker Pty Ltd; Report i265lx; Overall “Total R” (Thermally Bridged) Thermal Calculations To AS/NZS 4859 Parts 1 & 2:2018 Pine timber studs; Dated 24/04/2020.
9. James M Fricker Pty Ltd; Report i265lx; Overall “Total R” (Thermally Bridged) Thermal Calculations To AS/NZS 4859 Parts 1 & 2:2018 Steel studs; Dated 24/04/2020.
10. Warringtonfire Australia Pty Ltd; NATA Accreditation No. 3277; Report No. 55457600 R3.1; Fire resistance test in accordance with AS 1530.4-2014; Dated 03/12/2019.

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