



Certificate of Conformity

Certificate number: CM40239 Rev2

Certification Body:



ABN: 81 663 250 815
JAS-ANZ Accreditation
No. Z4450210AK
PO Box 273,
Palmwoods Qld 4555
Australia
P: +61 7 5445 2199
www.cmicert.com.au
office@cmicert.com.au

Certificate Holder:

Metecno Pty Ltd
T/A Metecno,
Bondor®
ABN: 44 096 402 934
121 Ingram Road,
Acacia Ridge Qld 4110
Australia
P: +61 7 3323 8555
www.bondor.com.au

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 8</i> .	H2D6(4) Weatherproofing – Roof and wall cladding
	C2D11 (1)(b) & (i) Fire hazard properties. Walls, Ceiling & Other Insulative Material other than sarking - Refer A3	H3D3 Fire-resistance of building elements – Can be used where an FRL 60/60/60 or 90/90/90 is required - Refer A3.
	F3D5(1)(c) Weatherproofing – Wall cladding	H6D2(1)(b)(i) Energy Efficiency – Contributes to the overall energy efficiency of the building - Refer A3
	G5D3 Construction in bushfire prone areas - Protection – External walls – BAL FZ	H7D4 Bushfire areas – External walls - BAL FZ
	J4D6 Energy Efficiency – Walls – Contributes to the overall energy efficiency of the building - Refer A3	
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: 25/05/2023

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 H3D3 of the BCA 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[®] Flameguard[®] panels can be used in external situations in non-cyclonic areas only.
5. 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.
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 and fixing configuration as per the product's certified span tables. Refer A3 below.
7. Condensation management compliance with F8P1 is satisfied through verification method F8V1. Compliance with H4P7 Condensation management is satisfied through verification method H4V5.
8. For compliance with C2D10(6)(g) the LuxeWall[®] Flameguard[®] wall panels must be fixed in accordance with C2D15 when used for a building of Type A or B construction.
9. 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.
10. 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.
11. 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.
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. 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.

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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"> • From 50mm to 150mm thickness LuxeWall® Flameguard® panels • 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 • With or without glass wool insulation in stud cavities; • Installation of weather wrap of Ametalin Silverwrap or other brands; the weather wrap may be optionally removed; • 90mm or deeper timber or equivalent steel stud frames; • LuxeWall® Flameguard® panel widths ranging from 900mm to 1200mm; • With or without external acrylic coating on LuxeWall® Flameguard® panels; • 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; • Optional installation of electrical conduits fixed onto the steel stud frames; • Installation of the LuxeWall® Flameguard® wall system up to 12 metres in height; • Penetrations in the wall system on the unexposed side for: <ol style="list-style-type: none"> 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. b) installation of a bath tap set (note that all penetrations are to be located at least 100mm away from the main vertical studs)
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.

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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	
	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
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 Total R, m ² K/W		Overall Total R, m ² 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
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 $U=1/R$.
 - 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.



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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_v3](#) or [Technical Drawing LuxeWall-Flameguard_90_v3](#). 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.

Condensation management

From 1 May 2023 to 30 September 2023 P2.4.7, V2.4.7 and Part 3.8.7 of NCC 2019 Volume Two Amendment 1 may apply instead of H4P7, H4V5 and H4D9 of NCC 2022 Volume Two. From 1 October 2023 H4P7, H4V5 and H4D9 of NCC 2022 Volume Two applies.

Energy efficiency

From 1 May 2023 to 30 September 2023 Part 2.6 and Part 3.12 of NCC 2019 Volume Two Amendment 1 may apply instead of Part H6 of NCC 2022 Volume Two. From 1 October 2023 Part H6 of NCC 2022 Volume Two applies.

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.
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.
3. Bligh Tanner; Report Reference No. 2017.0493; Certification of LuxeWall Span Tables; Dated 06/03/2023.
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.
5. CSIRO; Accreditation no. 165; Report No. FNC12440; AS 1530.1-1994 testing of steel skins; Dated 27/08/2019.
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. 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.
8. 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.
9. 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.