

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

Certificate number: CM40235

THIS IS TO CERTIFY THAT

InsulRoof®

Type and/or use of product:

Insulated roof panel.

Description of product:

InsulRoof® is an insulated roof panel comprising Expanded Polystyrene with Fire Retardant (M Grade or SL Grade EPS-FR) core with Polyurethane Foam (PUR) infill of the corrugation and COLORBOND® steel skins. Refer A2 for further information.

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) Structural stability and resistance to actions.
Deemed-to-Satisfy Provision(s):	C2D11 (1)(b) Fire Hazard Properties—Refer A3.	H2D6(4) Weatherproofing – Roof cladding
	F3D2(b) Weatherproofing – Roof coverings	H6D2(1)(b)(i) Energy Efficiency – Contributes to the overall energy efficiency of the building - Refer A3
	J4D4 Energy Efficiency – Contributes to the overall energy efficiency of the building - Refer A3	
State or territory variation(s):	Not Applicable	Not Applicable

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

Limitations and conditions:

- This product has not been tested to AS 1530.1-1994 (R2016) and cannot be considered a non-combustible product.
- The roof 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.
- The size and location of any penetration through the InsulRoof® roof panels must be in accordance with [Drawing IRE13-RP01-00 ROOF PENETRATIONS - INSULROOF - R0](#). Penetrations for flues, chimneys or exhaust of hot products of combustion are outside the scope of this certificate and require site-specific solutions. Contact Certificate Holder for site-specific solutions.
- Installation requirements 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.
- The structural support members are designed and engineered separately as per project requirements by building designers and engineers.

Building classification/s:

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



Richard Donarski – CMI



Don Grehan – Unrestricted Building Certifier

Date of issue: 01/03/2024

Date of expiry: 01/03/2027



Certificate of Conformity

6. The Group numbers have been determined in accordance with testing conducted to AS ISO 9705 and assessment against AS 5637.1: 2015 as either Group 2 or Group 1 depending on the thickness and construction detail, refer A3.
7. When used as internal wall and ceiling linings, this product as a Group 1 or Group 2 fire rated product, must comply with the group number specified in in Table S7C4 of Specification 7 of the BCA 2022, Volume 1. Refer A3.
8. It is the responsibility of the building designer to ensure fitness for purpose including, but not limited to, consideration for the corrosion resistance level of the product and the proximity to breaking surf.
9. In the absence of a site-specific performance solution, this product or system must not be used to facilitate the exemptions for a carport specified in Part 9.2.8 of the ABCB Housing Provisions.
10. 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.
11. 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

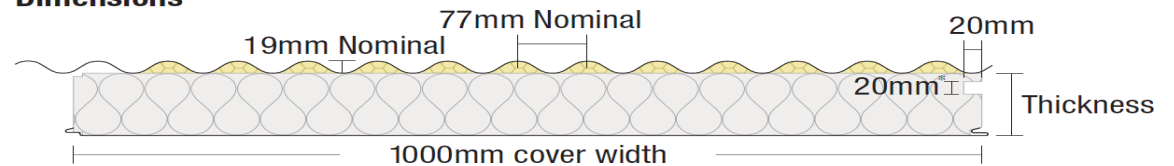
A1 Type and intended use of product

As per page 1.

A2 Description of product

Core	EPS-FR Expanded Polystyrene (M Grade or SL Grade) with fire retardant & with PUR (Polyurethane Foam) infill of corrugations.
Width (cover mm)	1000
Thickness (mm)	50, 75, 100, 125, 150 & 200
Length	Up to 12m
External Material	0.42mm G550 COLORBOND® steel
Internal Material	0.6mm G300 COLORBOND® steel
Pitch	5° Minimum

Dimensions



* Services ducts 30x30mm are available for panel thicknesses 150-200mm.

Source: Certificate Holder

A3 Product specification

Structure & Weatherproofing 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 1562.1, AS/NZS 1170.0, AS/NZS 1170.1, AS/NZS 1170.2, AS 4055 & AS 4040.1.

Document Name	Version
INSULROOF® SPAN TABLES FOR WIND REGION A – NON-CYCLONIC (EXTERNAL ROOFING APPLICATIONS ONLY) EPS-FR Core Grade SL 0.42mm hi-tensile / 0.6mm steel skins	5
INSULROOF® SPAN TABLES FOR WIND REGION B – NON-CYCLONIC (EXTERNAL ROOFING APPLICATIONS ONLY) EPS-FR Core Grade SL 0.42mm hi-tensile / 0.6mm steel skins	5
INSULROOF® SPAN TABLES FOR WIND REGION C – CYCLONIC (EXTERNAL ROOFING APPLICATIONS ONLY) EPS-FR Core Grade SL 0.42mm hi-tensile / 0.6mm steel skins	4
INSULROOF® SPAN TABLES FOR WIND REGION D – CYCLONIC (EXTERNAL ROOFING APPLICATIONS ONLY) EPS-FR Core Grade SL 0.42mm hi-tensile / 0.6mm steel skins	4
INSULROOF® SPAN TABLES FOR WIND REGION A –NON-CYCLONIC (EXTERNAL ROOFING APPLICATIONS ONLY) EPS-FR Core Grade M 0.42mm hi-tensile / 0.6mm steel skins	4
INSULROOF® SPAN TABLES FOR WIND REGION B –NON-CYCLONIC (EXTERNAL ROOFING APPLICATIONS ONLY) EPS-FR Core Grade M 0.42mm hi-tensile / 0.6mm steel skins	4
INSULROOF® SPAN TABLES FOR WIND REGIONS C & D –CYCLONIC (EXTERNAL ROOFING APPLICATIONS ONLY) EPS-FR Core Grade M 0.42mm hi-tensile / 0.6mm steel skins	2
INSULROOF® Roof Span Table for Housing Application – Non-Cyclonic & Cyclonic Regions EPS-FR Core Grade SL 0.42mm hi-tensile/0.6mm steel skins	6
INSULROOF® Roof Span Table for Housing Application – Non-Cyclonic & Cyclonic Regions EPS-FR Core Grade SL 0.42mm hi-tensile/0.6mm steel skins. Fixing to Timber Framing	4

Penetrations

In order to maintain compliance with structure, the following document must be referred to which has been certified by a licensed Professional Engineer; [Drawing IRE13-RP01-00 ROOF PENETRATIONS - INSULROOF - R0](#). The adequacy of the size, location and spacing of any penetrations outside the scope of this document through the InsulRoof® panel must be confirmed by a structural engineer.

Source: Bligh Tanner Pty Ltd; Reference Number; Dated 22/02/2023.

Material Group Numbers

Group Numbers have been determined in accordance with testing conducted to ISO 9705 and assessment against AS 5637.1:2015. Construction requirements for Group 1 and Group 2 are shown below, please refer Metecno® for more information.

Group 1:

Panel thickness up to 200mm

- Roof to Wall intersection: steel angles fixed with steel rivets or screws at maximum 300mm centres. Ceiling panel joints require steel stitching rivets at minimum 1200mm centres. Silicone sealant applied at the internal panel joints.

Smoke Growth Rate Index SMOGRA_{RC} 2.4m²/s²

Group 2:

Panel thickness up to 150mm

- Roof to Wall intersection: aluminium angles fixed with aluminium rivets or screws at maximum 300mm centres. Silicone sealant applied at the internal panel joints.

Panel thicker than 150mm up to 200mm

- Roof to Wall intersection: steel angles fixed with steel rivets or screws at maximum 300mm centres. Silicone sealant applied at the internal panel joints.

Smoke Growth Rate Index SMOGRA_{RC} 12.0 m²/s²

Notes:

- To comply with the Group numbers, mushroom bolts must be provided at no greater than 400mm from the edge of the panel and 2m between centres and steel flashing and edging must be installed.
- To maintain Group 1 classification, all rivets must be steel and joints between the wall and ceiling panels must be secured using 40mm × 40mm galvanised iron angle strips.
- Aluminium angle strips and rivets will achieve Group 2.

Source: Ignis Labs Pty Ltd; Report No. IGNL-7072-99-05 Issue 01 Revision 00 [2023]; IGNIL Advisory Note – Insulroof Group Number Evaluation; Dated 09/05/2023

Thermal & Energy Efficiency

Thickness (mm)	$\lambda_{\text{declared}}$ at 23°C (W/m.K)	R_{declared} at 15°C(m ² .K/W)	R_{declared} at 23°C(m ² .K/W)	Roof Total R-value (m ² .K/W) at		
				6°C	15°C	30°C
InsulRoof EPS-FR core Grade SL						
50	0.042	1.45	1.40	1.66	1.61	1.58
75	0.042	2.05	2.00	2.30	2.23	2.17
100	0.042	2.70	2.60	2.94	2.85	2.77
125	0.042	3.30	3.20	3.58	3.48	3.36
150	0.042	3.95	3.80	4.23	4.10	3.96
200	0.042	5.20	5.05	5.52	5.35	5.14
InsulRoof EPS-FR core Grade M						
Thickness (mm)	$\lambda_{\text{declared}}$ at 23°C (W/m.K)	R_{declared} at 15°C(m ² .K/W)	R_{declared} at 23°C(m ² .K/W)	Roof Total R-value (m ² .K/W) at		
				6°C	15°C	30°C
50	0.038	1.55	1.50	1.77	1.72	1.69
75	0.038	2.25	2.15	2.47	2.40	2.34
100	0.038	2.90	2.80	3.16	3.07	2.98
125	0.038	3.55	3.50	3.86	3.75	3.63
150	0.038	4.25	4.15	4.55	4.42	4.27
200	0.038	5.60	5.45	5.95	5.78	5.55

Notes:

- Declared R-values are Product R-values and exclude air film resistances.
- Total R-values include default air film resistances for the applications.
- The results are compliant with AS/NZS 4859 Parts 1&2:2018, Thermal insulation materials for buildings.
- The requirements of J3D5(1) of Volume 1 of the BCA and Part 13.2.3 (1) to (7) of the ABCB Housing Provisions do not apply to roof constructed using insulated sandwich panels.

Source: James Fricker Report No. i265e updated 03/09/2023.

A4 Manufacturer and manufacturing plant(s)

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

A5 Installation requirements

Installation requirements 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.

A6 Other relevant technical data

Acoustic Performance 50mm InsulRoof® achieved R_w 24, C-2 & C_{tr} -3
200mm InsulRoof® achieved R_w 23, C-2 & C_{tr} -4

Source: CSIRO Report No. TL573-01-1 and TL573-02-1 dated 27/08/2015.

Fire Hazard Properties **AS/NZS 1530.3-1999 Indices when tested to the corrugated face of the panel.**

Ignitability Index	0	Range 0-20
Spread of Flame Index	0	Range 0-10
Heat Evolved Index	0	Range 0-10
Smoke Index	0	Range 0-10

Source: AWTA Test Report No. 7-599058-CQ dated 29/08/2014.

AS/NZS 1530.3-1999 Indices when tested to the flat face of the panel.

Ignitability Index	0	Range 0-20
Spread of Flame Index	0	Range 0-10
Heat Evolved Index	0	Range 0-10
Smoke Index	0-1	Range 0-10

Source: AWTA Test Report No. 7-599072-CQ dated 29/08/2014.

APPENDIX B – EVALUATION STATEMENTS

B1 Evaluation methods

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

B2 Reports

1. Bligh Tanner; Report No. 2017.0493; Certification of InsulRoof® Span Tables AS 1170.0:2002, AS 1170.1:2002, AS 1170.2:2011, AS 4040.1 & AS 1562.1; Dated 22/02/2023. Report confirms compliance with B1P1(1),(2)(a),(b),(c), H1P1(1),(2)(a),(b),(c)&(3), H2D6(4) & F3D2(b).
2. Ignis Labs Pty Ltd; Report No. IGNU-7072-99-05 Issue 01 Revision 00 [2023]; IGNU Advisory Note – InsulRoof Group Number Evaluation; Dated 09/05/2023. Report provide evidence for compliance with C2D11(1)(b)&(i).
3. James M Fricker Pty Ltd; Document No. i265e; Declared R (thermally bridged) thermal performance calculations to AS/NZS 4859 Parts 1 & 2:2018; Dated 03/09/2023. Report provides thermal performance values in accordance with the requirements of J4D4 and H6D2(1)(b)(i).

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