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Certificate Holder:

Metecno Pty Ltd
T/A Metecno,
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Certificate number: CM40033

THIS IS TO CERTIFY THAT

Bondor® InsulLiving™ System

Type and/or use of product:

The Bondor® InsulLiving™ System is a residential structural building system.

Description of product:

Bondor® InsulLiving™ System is comprised of the following insulated wall and roof panels:

Wall Panels: InsulWall® is a load bearing, non-load bearing and or bracing insulated wall panel with Bluescope primed steel skins to allow for the direct application of render or paint.

Roof Panel Options:

- SolarSpan® is an insulated roof panel system comprising Expanded Polystyrene with Fire Retardant (SL Grade EPS-FR) core and COLORBOND® steel skins, or
- InsulRoof® is an insulated roof panel system comprising Expanded Polystyrene with Fire Retardant (SL or M Grade EPS-FR) and Polyurethane (PUR) core and COLORBOND® steel skins.

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

BCA 2022

	Volume One
Performance Requirement(s):	Not Applicable
Deemed-to-Satisfy Provision(s):	Not Applicable
State or territory variation(s):	Not Applicable

	Volume Two
H1P1(1),(2)(a),(b) & (c)	Structural stability and resistance to actions
H4P7	Condensation and water vapour management
H2D6(4)	Weatherproofing – Roof and wall cladding
H6D2(1)(b)(i)	Energy Efficiency – Contributes to the overall energy efficiency of the building - Refer A3
	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:

1. This product has not been tested to AS 1530.1-1994 (R2016) and cannot be considered a non-combustible product.
2. The roof panels will be limited by wind load depending on the span certified for the product type, thickness, core density and fixing configuration as per the product's certified span tables.
3. Bondor® InsulLiving™ System is to be designed and installed in accordance with [InsulLiving Installation Guide v14](#) and [InsulLiving Technical Manual v5](#).

Building classification/s:

Class 1 & 10


Richard Donarski – CMI


Don Grehan – Unrestricted Building Certifier

Date of issue: 01/03/2024

Date of expiry: 01/03/2027



Certificate of Conformity

4. The size and location of any penetration through the SolarSpan[®] roof panels must be in accordance with [SOL13-RP01-00 ROOF PENETRATIONS - SOLARSPAN - R0](#).
5. The size and location of any penetration through the InsulRoof[®] roof panels must be in accordance with [IRE13-RP01-00 ROOF PENETRATIONS - INSULROOF - R0](#).
6. 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.
7. The structural support members are designed and engineered separately as per project requirements by building designers and engineers.
8. Compliance with H4P7 Condensation management is satisfied through verification method H4V5.
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 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

The Bondor® InsulLiving™ System comprises the following components to make up the overall wall and roof system as required:

InsulWall® Panel

Core	EPS-FR (Expanded Polystyrene SL Grade with Fire Retardant)
Width (cover mm)	1200
Thickness (mm)	90, 140
Length	Up to 16m
External Material	0.6mm G300 prime coated BlueScope® Steel
External Finishes	Plain
Internal Material	0.6mm G300 prime coated BlueScope® Steel
Internal Finishes	Plain

Dimensions

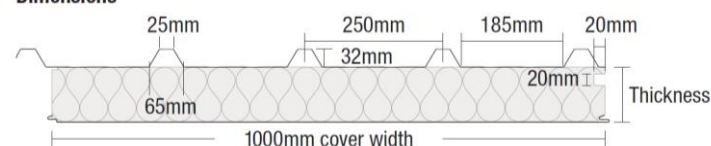


Source: Certificate Holder

SolarSpan® Panel

Core	EPS-FR (Expanded Polystyrene SL Grade with Fire Retardant)
Width (cover mm)	1000
Thickness (mm)	50, 75, 100, 125, 150, 175, & 200
Length	Up to 24m
Exterior Facing Skin	0.42mm G550 COLORBOND® Steel
Interior Facing Skin	0.5mm or 0.6mm G300 COLORBOND® Steel (See A3)
Finishes	Plain, Elegance
Pitch	2° Minimum

Dimensions

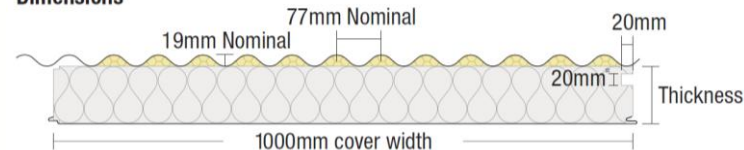


Source: Certificate Holder

InsulRoof® Panel

Core	EPS-FR (Expanded Polystyrene SL or M Grade with Fire Retardant) & PUR (Polyurethane Foam)
Width (cover mm)	1000
Thickness (mm)	50, 75, 100, 125, 150 & 200
Length	Up to 12m (check for availability)
External Material	0.42mm G550 COLORBOND® Steel
External Finishes	Corrugated
Internal Material	0.6mm G300 COLORBOND® Steel
Internal Finishes	Plain, Elegance
Pitch	5° minimum

Dimensions



Source: Certificate Holder

Certificate of Conformity

A3 Product specification

Structure

Structural capacities of the panels have been determined by calculation using first principal engineering methods to analyse data from physical testing. The structural tests completed include; static and cyclic face load of wall and roof panels, axial load capacity of wall panels, static and cyclic racking (vertical bracing) of walls, roof diaphragm (horizontal bracing) & static face loading of wall panels with openings. Testing has been completed using both static and cyclic testing regimes to enable use in non-cyclonic and cyclonic regions of Australia.

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.

SolarSpan®

Document Name	Version
SOLARSPAN® SPAN TABLES FOR WIND REGION A - NON CYCLONIC (EXTERNAL ROOF APPLICATIONS ONLY) EPS-FR Core Grade SL 0.42mm hi-tensile / 0.6mm steel skins	8
SOLARSPAN® SPAN TABLES FOR WIND REGION B - NON CYCLONIC (EXTERNAL ROOF APPLICATIONS ONLY) EPS-FR Core Grade SL 0.42mm hi-tensile / 0.6mm steel skins	8
SOLARSPAN® SPAN TABLES FOR WIND REGION C – CYCLONIC (EXTERNAL ROOF APPLICATIONS ONLY) EPS-FR Core Grade SL 0.42mm hi-tensile / 0.6mm steel skins	9
SOLARSPAN® SPAN TABLES FOR WIND REGION D – CYCLONIC (EXTERNAL ROOF APPLICATIONS ONLY) EPS-FR Core Grade SL 0.42mm hi-tensile / 0.6mm steel skins	9
SOLARSPAN® SPAN TABLES FOR WIND REGION A - NON CYCLONIC (EXTERNAL ROOF APPLICATIONS ONLY) EPS-FR Core Grade SL 0.42mm hi-tensile / 0.5mm steel skins	8
SOLARSPAN® SPAN TABLES FOR WIND REGION B - NON CYCLONIC (EXTERNAL ROOF APPLICATIONS ONLY) EPS-FR Core Grade SL 0.42mm hi-tensile / 0.5mm steel skins	8
SOLARSPAN® SPAN TABLES FOR WIND REGION C – CYCLONIC (EXTERNAL ROOF APPLICATIONS ONLY) EPS Core Grade SL 0.42mm hi-tensile / 0.5mm steel skins	7
SOLARSPAN® SPAN TABLES FOR WIND REGION D – CYCLONIC (EXTERNAL ROOF APPLICATIONS ONLY) EPS Core Grade SL 0.42mm hi-tensile / 0.5mm steel skins	7
SOLARSPAN® SPAN TABLES – ROOF SPAN TABLE FOR HOUSING APPLICATION EPS-FR Core Grade SL 0.42mm hi-tensile/0.6mm steel skins	11
SOLARSPAN® SPAN TABLES – ROOF SPAN TABLE FOR HOUSING APPLICATION EPS-FR Core Grade SL 0.42mm hi-tensile/0.6mm steel skins. Fixing to Timber Framing	6

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 [SOL13-RP01-00 ROOF PENETRATIONS - SOLARSPAN - R0](#). The adequacy of the size, location and spacing of any penetrations outside the scope of this document through the SolarSpan® roof panel must be confirmed by a structural engineer.

InsulRoof®

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® roof panel must be confirmed by a structural engineer.

Source: Bligh Tanner Pty Ltd; Reference Number: 2017.0493; Dated 22/02/2023.

Certificate of Conformity

Energy Efficiency

InsulWall® EPS-FR core SL Grade				Wall Total R-value (m².K/W) at		
Thickness (mm)	$\lambda_{\text{declared}}$ at 23°C (W/m.K)	R_{declared} at 15°C(m².K/W)	R_{declared} at 23°C(m².K/W)	6°C	15°C	30°C
90	0.042	2.25	2.15	2.49	2.41	2.29
140	0.042	3.45	3.40	3.77	3.66	3.48
InsulRoof® EPS-FR core SL Grade & PUR				Roof Total R-value (m².K/W) at		
Thickness (mm)	$\lambda_{\text{declared}}$ at 23°C (W/m.K)	R_{declared} at 15°C(m².K/W)	R_{declared} at 23°C(m².K/W)	6°C	15°C	30°C
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 & PUR				Roof Total R-value (m².K/W) at		
Thickness (mm)	$\lambda_{\text{declared}}$ at 23°C (W/m.K)	R_{declared} at 15°C(m².K/W)	R_{declared} at 23°C(m².K/W)	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
SolarSpan® EPS-FR core SL Grade				Roof Total R-value (m².K/W) at		
Thickness (mm)	$\lambda_{\text{declared}}$ at 23°C (W/m.K)	R_{declared} at 15°C(m².K/W)	R_{declared} at 23°C(m².K/W)	6°C	15°C	30°C
50	0.042	1.25	1.20	1.44	1.40	1.38
75	0.042	1.85	1.80	2.09	2.03	1.98
100	0.042	2.45	2.40	2.73	2.65	2.57
125	0.042	3.10	3.00	3.37	3.27	3.17
150	0.042	3.70	3.60	4.02	3.90	3.76
175	0.042	4.35	4.25	4.66	4.52	4.35
200	0.042	4.95	4.85	5.30	5.15	4.95

- 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.
 - Calculated by James Fricker, F.AIRAH F.IEAust CPEng NER APEC Engineer IntPE(Aus).
 - The requirements of Part 13.2.3 (1) to (7) & 13.2.5(5) of the ABCB Housing Provisions do not apply to roofs and walls constructed using insulated sandwich panels.

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

Certificate of Conformity

Condensation Management

The InsulWall® has been assessed for Class 1a dwellings in line with the Verification Method V2.4.7 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 Report Insulwall-r3; NCC Condensation Management Report dated 15/02/2023.

A4 Manufacturer and manufacturing plant(s)

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

A5 Installation requirements

Bondor® InsulLiving™ System is to be installed in accordance with [InsulLiving Installation Guide v14](#) and [InsulLiving Technical Manual v5](#).

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.

50mm SolarSpan® achieved R_w 25, C -1 & C_{tr} -3
90mm SolarSpan® achieved R_w 25, C -1 & C_{tr} -4
125mm SolarSpan® achieved R_w 24, C -2 & C_{tr} -4

Source: CSIRO Report No. TL484 dated March 2008.

APPENDIX B – EVALUATION STATEMENTS

B1 Evaluation methods

1. Condensation Management Provisions – A5G3(1)(e). Reports from an appropriately qualified person.
2. Energy Efficiency Provisions A5G3(1)(e). Reports from a professional engineer.
3. Structural Provisions A5G3(1)(e). Reports from a professional engineer.
4. Weatherproofing Provision A5G3(1)(e). Reports from a professional engineer.

B2 Reports

1. BCA Energy Pty Ltd; Reference No: 116984-NCC Condensation Management Report InsulWall-r3; NCC Condensation Management Report InsulWall® Product by Bondor; Dated 15/02/2023. Report confirms the InsulLiving System complies with H4P7 in accordance with verification method H4V5.
2. Bligh Tanner Pty Ltd; Job No. 2017.0493; Certification of InsulLiving Technical Manual Version 5; Dated 28/06/2023. Certification confirms compliance of the InsulLiving Technical Manual Version 5 with BCA requirements of & H1P1(1),(2)(a), (b),& (c) and H2D6(4).
3. Bligh Tanner Pty Ltd; Ref No. 2017.0493; Certification of InsulRoof® AS 1170.0:2002, AS 1170.1:2002, AS 1170.2:2011, AS 4040.1-1992 & AS 1562.1:2018; Dated 22/02/2023. Certification confirms compliance of the InsulRoof Panel Span tables with BCA requirements of & H1P1(1),(2)(a), (b),& (c) and H2D6(4).
4. Bligh Tanner Pty Ltd; Ref No. 2017.0493; Certification of SolarSpan® AS 1170.0:2002, AS 1170.1:2002, AS 1170.2:2011, AS 4040.1-1992 & AS 1562.1:2018; Dated 05/05/2023. Certification confirms compliance of the SolarSpan Panel Span tables with BCA requirements of & H1P1(1),(2)(a), (b),& (c) and H2D6(4).
5. James M Fricker; Report No. i265e; Declared R (thermally bridged) thermal performance calculations to AS/NZS 4859 Parts 1 & 2:2018; Updated 03/09/2023. Report provides thermal performance values in accordance with the requirements of 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.