

Certificate number: CM40033

Certification Body:



ABN: 80 111 217 568

JAS-ANZ Accreditation

No. Z4450210AK

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Downs Qld 4556

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www.CertMark.org

Certificate Holder:

Metecno Pty Ltd

T/A Metecno,
Bondor®

ABN: 44 096 402 934

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Acacia Ridge Qld 4110
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www.bondor.com.au

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

COMPLIES WITH THE FOLLOWING BCA PROVISIONS AND STATE OR TERRITORY VARIATION(S) BCA 2019 (Amdt. 1)

	Volume One	Volume Two	
Performance Requirement(s):	Not Applicable	P2.1.1(a),(b)(i),(ii)&(iii),	Structural stability and resistance to actions
		P2.2.2	Weatherproofing – Refer limitation and condition 2.
Deemed-to-Satisfy Provision(s):	Not Applicable	3.12.1.2	Energy Efficiency – Roofs. Can be used in conjunction with other building elements to achieve a Total R Value. Refer to A3.
		3.12.1.4	Energy Efficiency – External Walls. Can be used in conjunction with other building elements to achieve a Total R Value. Refer to A3.
		3.12.1.6	Energy Efficiency – Attached Class 10a buildings. Can be used in conjunction with other building elements to achieve a Total R Value. Refer to A3.
State or territory variation(s):	Not Applicable	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: 02/03/2021

Date of expiry:

02/03/2024





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Certificate of Conformity

Limitations and conditions:

Building classification/s:

Class 1 & 10

- 1. All design and fixing specifications and installations must be completed in accordance with InsulLiving Installation Guide v13; 06/08/2020.
- 2. Weatherproofing is 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.
- 3. The structural support members are designed and engineered separately as per project requirements by building designers and engineers. This certificate is limited to the details within this certificate including the above compliance elements, product description, purpose or use.
- 4. The metal 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.
- 5. The size and location of any penetration through the SolarSpan panels must be in accordance with SOL13-RP01-00 ROOF PENETRATIONS SOLARSPAN RO.
- 6. The size and location of any penetration through the InsulRoof panels must be in accordance with IRE13-RP01-00 ROOF PENETRATIONS INSULROOF RO.
- 7. 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.
- 8. This product has not been tested to AS 1530.1-1994 (R2016) and cannot be considered a non-combustible product.
- 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 3.7.2.6 Open carports of Volume 2 of the BCA 2019.
- 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. 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.

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APPENDIX A – PRODUCT TECHNICAL DATA

A1 Type and intended use of product

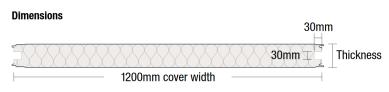
As per page 1.

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

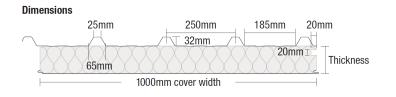
Core	EPS-FR (Expanded Polystyrene SL Grade with Fire Retardant)
Width (cover mm)	1200
Thickness (mm)	90, 140
Length	Up to 16m
External Material	0.6mm G300 prime coated BlueScope Steel
External Finishes	Plain
Internal Material	0.6mm G300 prime coated BlueScope Steel
Internal Finishes	Plain



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	0.6mm G300 Colorbond Steel
Finishes	Plain, Elegance
Pitch	2° Minimum



Source: Certificate Holder

InsulRoof® Panel

Core	EPS-FR (Expanded Polystyrene SL 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	





A3 Product specification

Structure & Weatherproofing

Structural capacities of the panels have been specified in the Bondor® InsulLiving® Technical Manual. These structural capacities have been calculated by using first principal engineering methods to analyse data from physical testing. Testing has been completed using both static and cyclic testing regimes to enable use in non-cyclonic and cyclonic regions of Australia.

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.

Tested in accordance with AS 1562.1, AS/NZS 1170.0, AS/NZS 1170.1, AS/NZS 1170.2, AS 4055 & AS 4040.1 In order to maintain compliance with structure, the following Span Tables must be referred to which have been certified by a licensed Professional Engineer.

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	7
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	7
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	6
SOLARSPAN® SPAN TABLES FOR WIND REGION D - CYCLONIC (EXTERNAL ROOF APPLICATIONS ONLY) EPS Core Grade SL 0.42mm hi-tensile / 0.5mm steel skins	6
SOLARSPAN® SPAN TABLES – ROOF SPAN TABLE FOR HOUSING APPLICATION EPS-FR Core Grade SL 0.42mm hi-tensile/0.6mm steel skins	10

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 <u>SOL13-RP01-00 ROOF PENETRATIONS - SOLARSPAN - RO</u>. The adequacy of the size, location and spacing of any penetrations outside the scope of this document through the SolarSpan® 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® Roof Span Table for Housing Application – Non-Cyclonic & Cyclonic Regions EPS-FR Core Grade SL 0.42mm hi-tensile/0.6mm steel skins	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 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: 2017.0493; Dated 04/02/2021.



Energy Efficiency

InsulWall EPS-FR core SL Grade Wall Total R-value (m².K/W					(/W) at	
Thickness (mm)	λ _{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)	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 Gra	InsulRoof EPS-FR core SL Grade Roof Total R-value (m ² .K/W) at						
Thickness (mm)	$\lambda_{declared}$ at 23°C (W/m.K)	R _{declared} at 15°C(m ² .K/W)	R _{declared} at 23°C(m ² .K/W)	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	

SolarSpan EPS-FR core SL Grade

Thickness (mm)	$\lambda_{declared}$ at 23°C (W/m.K)	R _{declared} at 15°C(m ² .K/W)	R _{declared} at 23°C(m ² .K/W)	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:

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- 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, hence they are compliant with NCC2019 Volumes One and Two.
- Calculated by James Fricker, F.AIRAH F.IEAust CPEng NER APEC Engineer IntPE(Aus).

Source: James Fricker Report No. i265e updated 21/02/2021.

Roof Total R-value (m2.K/W) at



A4 Manufacturer and manufacturing plant(s)

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

A5 Installation requirements

Bondor® InsulLiving® System is to be installed in accordance with InsulLiving Installation Guide v13.

A6 Other relevant technical data

No other relevant technical data.

APPENDIX B – EVALUATION STATEMENTS

B1 Evaluation methods

- 1. Structural Provisions A5.2(1)(e). Reports from a professional engineer.
- 2. Thermal Provisions A5.2(1)(e). Reports from a professional engineer.
- 3. Weatherproofing Provision A5.2(1)(e). Reports from a professional engineer.

B2 Reports

- 1. Bligh Tanner Pty Ltd; Ref. No. 2019.0738; Bondor InsulLiving and Insulroof system Weatherproofing and Structural BCA compliance; Dated 18/08/2020.
- 2. 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 04/02/2021.
- 3. 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 04/02/2021.
- 4. James M Fricker; Report No. i265e; Declared R (thermally bridged) thermal performance calculations to AS/NZS 4859 Parts 1 & 2:2018; Updated 22/02/2021.

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