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Certificate Holder:

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THIS IS TO CERTIFY THAT

SolarSpan®

Type and/or use of product:

Insulated roof panel.

Description of product:

SolarSpan® is an insulated roofing panel comprising Expanded Polystyrene with Fire Retardant (SL Grade EPS-FR) core 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) & (3)	Structural stability and resistance to actions
Deemed-to-Satisfy Provision(s):	C2D11 (1)(b)	Fire Hazard Properties – Ceiling linings - 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:

Building classification/s:

- 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. Refer A3 below.
- The size and location of any penetration through the SolarSpan® roof panels must be in accordance with Drawing [SOL13-RP01-00 ROOF PENETRATIONS - SOLARSPAN - RO](#). 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.
- This product has not been tested to AS 1530.1-1994 (R2016) and cannot be considered a non-combustible product.
- 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.

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



Richard Donarski – CMI



Don Grehan – Unrestricted Building Certifier

Date of issue: 11/05/2023

Date of expiry: 01/03/2024



Certificate of Conformity

5. 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.
6. The structural support members are designed and engineered separately as per project requirements by building designers and engineers.
7. The Group numbers have been determined in accordance with testing conducted to AS ISO 9705 and assessment against AS5637.1: 2015 as either Group 2 or Group 1 depending on the thickness and construction detail, refer A3.
8. 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.
9. 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.
10. 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

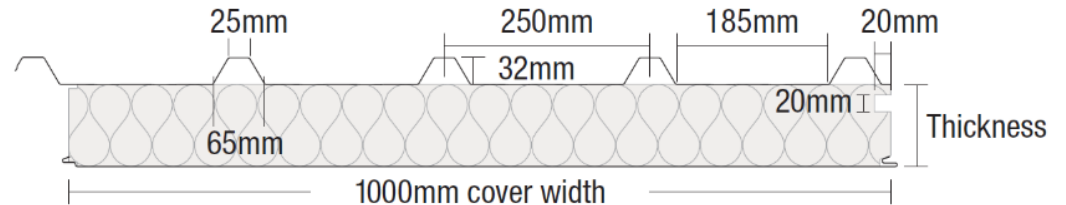
As per page 1.

A2 Description of product

SolarSpan® is a long-spanning commercial and residential insulated roof panel system that combines roofing, EPS-FR insulation and a pre-painted ceiling in one. The product contains SolarSpan® insulated metal roof panels, fixings, flashings, channels, and sealant (where required). The structural support members are designed and engineered separately to the metal roof panels.

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
Finishes	Plain, Elegance

Dimensions



Source: Certificate Holder

A3 Product specification

Structure & Weatherproofing

In order to maintain compliance with structure and weatherproofing for roofs, 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
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 - RO](#). 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.

Source: Bligh Tanner Pty Ltd; Reference Number: 2017.0493; Dated 05/05/2023.

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

Source: Ignis Solutions Report 5396 I03R00 – Bondor Panels ISO 9705 Testing dated 12/05/2022 & CSIRO Report CMIT-(C)-2004-089 dated March 2004.

Thermal & Energy Efficiency

SolarSpan EPS-FR core SL Grade		Roof Total R-value (m ² .K/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	
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.
- Calculated by James Fricker, F.AIRAH F.IEAust CPEng NER APEC Engineer IntPE(Aus)
- 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 21/02/2021.

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 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.

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

B2 Reports

1. Bligh Tanner Pty Ltd; Reference Number: 2017.0493; Certification of Solarspan[®] AS 1170.0:2002, AS 1170.1:2002, AS 1170.2:2011, AS 4040.1 & AS 1562.1; Dated 05/05/2023.
2. Ignis Solutions; Evaluation No. IGNS-5396 Issue 03 Revision 00; IGNIS Advisory Note – BONDOR Panels ISO Testing; Dated 12/05/2022.
3. CSIRO; Report No. CMIT-(C)-2004-089; Assessment of the performance of sandwich panels; Dated March 2004.
4. James M Fricker Pty Ltd; Document No. i265e; Declared R (thermally bridged) thermal performance calculations to AS/NZS 4859 Parts 1 & 2:2018; Updated 21/02/2021.

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