

Certificate number: CM40344

Certification Body:


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THIS IS TO CERTIFY THAT

Solaris® RidgePanel®

Type and/or use of product:

Insulated roof panel.

Description of product:

Solaris® RidgePanel® is an insulated roofing panel comprising Expanded Polystyrene with Fire Retardant (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 2019 (Amdt. 1)**

	Volume One	Volume Two
Performance Requirement(s):	BP1.1(a)&(b)(i), (ii)&(iii) Structural reliability.	P2.1.1(a)&(b)(i), (ii)&(iii) Structural stability and resistance to actions.
Deemed-to-Satisfy Provision(s):	C1.10(a)(ii) Fire Hazard Properties — Refer A3.	P2.2.2 Weatherproofing – Roof applications only subject to <i>Limitations & Conditions No. 7</i> .
	F1.5(d) Weatherproofing – Roof applications only subject to <i>Limitations & Conditions No. 7</i>	3.12.1.2 Energy Efficiency – Roofs. Can be used in conjunction with other building elements to achieve a Total R Value – Refer A3.
	J1.3 Energy Efficiency – Roof and ceiling construction. Can be used in conjunction with other building elements to achieve a Total R Value – Refer 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 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: 13/06/2022

Date of expiry: 13/06/2025



Certificate of Conformity

Limitations and conditions:

1. 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.
2. Any penetrations made into the certified products will void all nominated structural performance. The adequacy of the size, location and spacing of any penetrations through the roof panel must be confirmed by a structural engineer.
3. This product has not been tested to AS 1530.1-1994 (R2016) and cannot be considered a non-combustible product.
4. 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(a) of Volume 2 of the BCA
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 weatherproofing requirements of P2.2.2 in relation to external walls, including openings around windows and doors, do not form part of this Certificate of Conformity.
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. 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.
10. When used as a ceiling lining, this product as a Group 1 or Group 2 fire rated product, must comply with the group number specified in Table 3 of Specification C1.10 of the BCA Volume 1, 2019 Amendment 1. Refer A3.
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.

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, 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.

APPENDIX A – PRODUCT TECHNICAL DATA

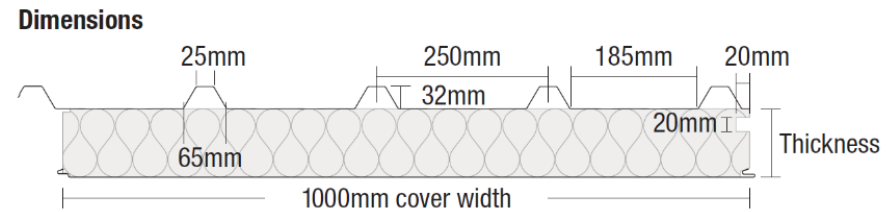
A1 Type and intended use of product

As per page 1.

A2 Description of product

Solaris® RidgePanel® is a long-spanning commercial and residential insulated roof panel system that combines pre-painted metal roofing panels with EPS-FR insulation.

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 Hi-Tensile COLORBOND® Steel
Interior Facing Skin	0.6mm COLORBOND® Steel
Pitch	2° Minimum



A3 Product specification

Structure & Weatherproofing 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.

Document Name	Version
SOLARIS® RIDGEPANEL® 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
SOLARIS® RIDGEPANEL® 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
SOLARIS® RIDGEPANEL® SPAN TABLES FOR WIND REGION C – CYCLONIC (EXTERNAL ROOF APPLICATIONS ONLY) EPS-FR Core Grade SL 0.42mm hi-tensile/0.6mm steel skins	8
SOLARIS® RIDGEPANEL® SPAN TABLES FOR WIND REGION D – CYCLONIC (EXTERNAL ROOF APPLICATIONS ONLY) EPS-FR Core Grade SL 0.42mm hi-tensile/0.6mm steel skins	8
SOLARIS® RIDGEPANEL® 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
SOLARIS® RIDGEPANEL® 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
SOLARIS® RIDGEPANEL® SPAN TABLES FOR WIND REGION C – CYCLONIC (EXTERNAL ROOF APPLICATIONS ONLY) EPS-FR Core Grade SL 0.42mm hi-tensile/0.5mm steel skins	7
SOLARIS® RIDGEPANEL® SPAN TABLES FOR WIND REGION D – CYCLONIC (EXTERNAL ROOF APPLICATIONS ONLY) EPS-FR Core Grade SL 0.42mm hi-tensile/0.5mm steel skins	7
SOLARIS® RIDGEPANEL® SPAN TABLES – ROOF SPAN TABLE FOR HOUSING APPLICATION EPS-FR Core Grade SL 0.42mm hi-tensile/0.6mm steel skins	10

Source: Bligh Tanner; Report No. 2019.0738; Certification of Solaris® RidgePanel® Span Tables and compliance with F1.5 of NCC Vol 1 and P2.2.2 of NCC Vol 2; Dated 14/02/2022.

Material Group Numbers

Group Numbers have been determined in accordance with testing conducted to ISO 9705 and assessment against AS 5637.1:2015.

Group 1 – Panels 50mm to 200mm thick

- Wall Panel to Wall Panel corner junction
Panel to panel junctions require steel angles fixed to the steel skins at not more than 300 mm centres, with steel rivets.
- Ceiling panel to panel joins require a steel (stitch) rivet connecting the metal skins at not more than 1200 mm centres.

Smoke Growth Rate Index (SMOGR_{RC}) is 2.4 m²s⁻² x 1000.

Group 2 – Panels 50mm to 200mm thick

- Wall Panel to Wall Panel corner junction
Panel to panel junctions require steel angles fixed to the steel skins at not more than 300 mm centres, with steel rivets.
Panel to panel corner junctions require aluminium angles fixed to the steel skins at not more than 300mm centres, with aluminium rivets.

Smoke Growth Rate Index (SMOGR_{RC}) is 12.0 m²s⁻² x 1000.

Notes:

- To maintain a Group 1 classification, 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 achieve a Group 2, the edges of the panel must be flashed
- Aluminium angle strips and rivets will achieve Group 2.

Source: *IGNIS Advisory Note, IGNS-10056-02 Issue 01 Revision 00[2022] & CSIRO Report CMIT-(C)-2004-089 dated March 2004.*

Thermal & Energy Efficiency

Solaris® RidgePanel® EPS-FR core SL Grade

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	0.042	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
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, 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 28/02/2022.*



Certificate of Conformity

A4 Manufacturer and manufacturing plant(s)

This field is voluntary. 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

No other relevant technical data.

APPENDIX B – EVALUATION STATEMENTS

B1 Evaluation methods

1. Fire Safety Provisions A5.2(1)(d)&(e). Reports from Accredited Testing Laboratories and a professional engineer.
2. Structural Provisions A5.2(1)(e). Reports from a professional engineer.
3. Thermal Provisions A5.2(1)(e). Reports from a professional engineer.
4. Weatherproofing Provision A5.2(1)(e). Reports from a professional engineer.

B2 Reports

1. Bligh Tanner Pty Ltd; Reference Number: 2019.0738; Certification of Solaris® RidgePanel® AS 1170.0:2002, AS 1170.1:2002, AS 1170.2:2011, AS 4040.1 & AS 1562.1; Dated 14/02/2022.
2. Ignis Solutions; Evaluation No. IGNS-10056-01 Issue 01 Revision 00 [2022]; Product Evaluation – Solaris® RidgePanel® Group Number Evaluation; 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 28/02/2022.

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