

Certificate number: CM40191 Rev2

Certification Body:


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Certificate Holder:

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THIS IS TO CERTIFY THAT

MetecnoInspire®

Description of product:

MetecnoInspire® is an insulated wall and ceiling panel that features an outer steel faces and a PIR (Polyisocyanurate) core. Refer A2 for details.

Type and/or use of product:

Insulated wall and ceiling panel.

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) CP2 FP1.4	Structural Reliability Contributes to the protection from the spread of fire – Subject to <i>Limitations and Conditions No. 1</i> Weatherproofing – Subject to <i>Limitation and Condition No. 5</i>
Deemed-to-Satisfy Provision(s):	C1.10(a)(ii) &(ix) J1.5	Structural stability and resistance to actions (b)(i), (ii)&(iii) Weatherproofing – Subject to <i>Limitation and Condition No.5</i> Fire Hazard Properties – Ceiling & Other Insulative Material other than sarking - Refer A3 Energy Efficiency – Walls - Contributes to the overall energy efficiency of the building. 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

Limitations and conditions:

- Contribution to satisfying CP2 is limited to the external wall; classified EW, tested to AS 5113:2016 as appropriate for non-loadbearing external cladding systems fixed to and supported by a structural steel frame. Limited to the 100mm panel with a 6mm cement sheet on the unexposed side. Limited to 10kW/m² - Refer A3.
- 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 Table 3 of Specification C1.10 of the BCA Volume 1, 2019 Amendment 1. 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 construction detail, refer A3.

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: 06/06/2022

Date of expiry: 23/03/2024



Certificate of Conformity

3. BCA requires certain external walls, common walls or internal load bearing walls and/or ancillary elements of some Class 2 to 9 buildings to be non-combustible. In the absence of site-specific performance solution, this product or system is not suitable for use in these applications where a non-combustible product is required.
4. This product has not been tested to AS 1530.1-1994 (R2016) and cannot be considered a non-combustible product.
5. To satisfy FP1.4 & P2.2.2 via verification, the relevant design is required to meet the criteria of FV1.1 and/or V2.2.1 to the satisfaction of the Appropriate Authority as defined by the NCC. The site specific building must;
 - (a)(i) have a risk score of 20 or less, when the sum of all risk factor scores is determined in accordance with Table FV1.1/V2.2.1a; and
 - (a)(ii) not be subjected to an ultimate limit state wind pressure of more than 2.5kPa; and
 - (a)(iii) include only windows that comply with AS 2047.Compliance with Weatherproofing is limited to the tested specimen detailed in A3, deviations from this specimen, is subject to site specific design and approval by the regulatory authority.
6. 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.
7. The metal wall 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.
8. In the absence of site-specific performance solution, this product is not suitable for use as an external roofing panel.
9. The structural support members are designed and engineered separately as per project requirements by building designers and engineers.
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, 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

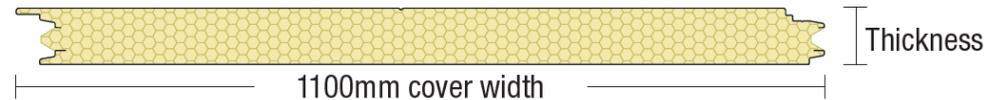
A1 Type and intended use of product

As per page 1.

A2 Description of product

Core	PIR – (Fire-retardant Polyisocyanurate)
Width (cover mm)	1100
Thickness	50, 60, 80 & 100
Length	Up to 16m
External Material	BlueScope® Colorbond® Steel 0.5, 0.6mm G300
Internal Material	BlueScope® Colorbond® Steel 0.5, 0.6mm G300

Dimensions



Source: Certificate Holder

A3 Product specification

CP2 'The Metecno panels have been tested to 10kW/m². This exposure corresponds to a distance of 6m under the Building to Building assessment and CV1 and CV2 of the BCA'. The above advice has been extrapolated to include MetecnoInspire®.
Source: Irwinconsult Pty Ltd, dated 26/03/2018.

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

Document Name	Version
METECNOINSPIRE® SPAN TABLES FOR WIND REGION A & B – NON-CYCLONIC (EXTERNAL WALL APPLICATIONS ONLY) PIR Core 0.6/0.5mm steel skins – Screw	3
METECNOINSPIRE® SPAN TABLES FOR WIND REGION A & B – NON-CYCLONIC (EXTERNAL WALL APPLICATIONS ONLY) PIR Core 0.6/0.5mm steel skins – Mushroom	2
METECNOINSPIRE® SPAN TABLES FOR WIND REGION A & B (CEILING APPLICATIONS) PIR Core 0.6/0.5mm steel skins – Screw	4
METECNOINSPIRE® SPAN TABLES FOR WIND REGION A & B (CEILING APPLICATIONS) PIR Core 0.6/0.5mm steel skins – Mushroom	3
METECNOINSPIRE® SPAN TABLES FOR WIND REGION A, B, C & D (EXTERNAL WALL APPLICATIONS ONLY) PIR Core 0.6/0.5mm steel skins – Screw	1

Material Group Numbers Group Numbers have been determined in accordance with testing conducted to AS ISO 9705:2003 (R2016) and assessment against AS 5637.1:2015.

Group 1 – Panels 40mm to 100mm thick

- Wall Panel to Wall Panel corner junction - Colorbond 40 x 40 x 0.6 mm thick steel angles, with Ø4 mm steel rivets at 300 mm centres
- Wall Panel to Ceiling Panel junction - Colorbond 40 x 40 x 0.6 mm thick steel angles with 10 mm return crush fold, fixed horizontally along all ceiling-to-wall panel junctions with Ø4 mm steel rivets at 300 mm centres.

Smoke Growth Rate Index (SMOGR_{RC}) 3.7 m²/s² x 1000

Source: BRANZ Report No. FC14196-01 Issue 1 dated 04/03/2022.

Group 2 – Panels 50mm to 100mm thick

- Wall Panel to Wall Panel corner junction - 100 x 100 mm steel angle fixed with 4 mm steel rivets at 200 mm centres.
- Wall Panel to Ceiling Panel junction - 100 x 100 mm steel angle fixed with 4 mm steel rivets at 200 mm centres.

Smoke Growth Rate Index (SMOGR_{RC}) = 21.1 m²s⁻² x 1000

Source: Ignis Report No. IGNS-5396 Issue 2 Revision 1 dated 07/10/2019.

Group 2 – Panels 50mm to 100mm thick

- Wall Panel to Wall Panel corner junction
Internal - 40 x 40 x 1.5mm aluminium angle fixed with aluminium 5/32nd gauge 17mm long pop rivets at 300 mm centres.
External - 70 x 40 x 1.5mm aluminium angle flashing the external corner fixed with aluminium 5/32nd gauge 17mm long pop rivets at 300 mm centres.
- Wall Panel to Ceiling Panel junction
Internal - 40 x 40 x 1.5mm aluminium angle fixed aluminium 5/32nd gauge 17mm long pop rivets at 300 mm centres.
External - 70 x 40 x 1.5mm aluminium angle flashing the external corner fixed with aluminium 5/32nd gauge 17mm long pop rivets at 300 mm centres.

Smoke Growth Rate Index (SMOGR_{RC}) = 47 m²s⁻² x 1000

Source: Ignis Report No. IGNS-5396 Issue 2 Revision 1 dated 07/10/2019.

Thermal & Energy Efficiency	MetecnoInspire® PIR core				Wall Total R-value (m2K/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	0.023	2.30	2.20	2.61	2.49	2.31
	60	0.023	2.75	2.65	3.10	2.96	2.74
	80	0.023	3.70	3.55	4.08	3.89	3.60
	100	0.023	4.65	4.45	5.06	4.83	4.46

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.

Source: James M Fricker Pty Ltd, Report No. i265e dated 15/12/2020.

Weatherproofing Vertical panel configuration installed as a Direct Fix System in accordance with Verification Methods V2.2.1 & FV1 with AS/NZS 4284:2008. Nominated serviceability limit state pressures: +1630 Pa and –2450 Pa. Weatherproofing requirements are detailed in [Commercial Walling Design & Install Guide v2 2022](#). The minimum fixing requirements are outlined in the Span Tables referenced in A3 of this Certificate of Conformity.

Source: Ian Bennie And Associates; Accreditation No. 2371; Report No.2019-020-S5; NCC-2019 Verification Methods FV1 & V2.1.1 in accordance with AS/NZS 4284:2008; Dated 10/09/2019.

A4 Manufacturer and manufacturing plant(s)

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

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. Weatherproofing requirements are detailed in [Commercial Walling Design & Install Guide v2 2022](#).

A6 Other relevant technical data

Acoustic Performance 100mm MetecnoInspire® panel achieved R_w 26, C -3 & C_{tr} -5

Source: CSIRO Report No. TL678-01-1 dated 23 May 2019.

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 Provisions – A5.2(1)(d). Reports from Accredited Testing Laboratories.

B2 Reports

1. AWTA; NATA Accreditation No.983; Report No. 7-539731-CQ; PIR Panel Fire Indices Test; Dated 22/09/2005.
5. Bligh Tanner; Reference No. 2017.0493; Assessment of MetecnoInspire® Panel Span Tables in accordance with AS/NZS 1170.0, AS/NZS 1170.1, AS/NZS 1170.2, AS 4055 & AS 4040.1; Dated 26/03/2021.
2. Ian Bennie And Associates; Accreditation No. 2371; Report No.2019-020-S5; NCC-2019 Verification Methods FV1 & V2.2.1 in accordance with AS/NZS 4284:2008; Dated 10/09/2019.
3. BRANZ; Reference No. FC14196-01 Issue 2; Group number classification of MetecnoPanel®, MetecnoInspire® and MetecnoSpan® with thicknesses in a range of 40 mm to 100 mm inclusive in accordance with Australia NCC Specification C1.10 Clause 4; Dated 24/03/2022.
4. James M Fricker Pty Ltd; Report No. i265e; Declared R (thermally bridged) thermal performance calculations to AS/NZS 4859 Parts 1 & 2:2018; Dated 15/12/2020.
5. Ignis Solutions; Report No. 5396 I02 R01; Product Evaluation - MetecnoInspire® PIR Steel clad sandwich panel compliance to AS 5637.1:2015 based on below testing; Dated 07/10/2019.
 - a. CSIRO; Report EP141961 Rev B; AS/ISO 9705:2003 Testing with Steel flashings, Internal angle & rivets; Dated 27/02/2014; and
 - b. CSIRO; Report CSME-(C)-2008-75; AS/ISO 9705:1993 Testing with Aluminium flashings, Internal angle & rivets; Dated 06/02/2008.
6. Irwinconsult Pty Ltd; Report No. 18ME0160; Fire Engineering Report on CV3 Fire Compliance; Dated 26/03/2018.
7. James M Fricker Pty Ltd; Report No. i265e; Declared R (thermally bridged) thermal performance calculations to AS/NZS 4859 Parts 1 & 2:2018; Dated 15/12/2020.

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