Certificate of Conformity

Certification Body:

CertMark International
ABN: 80 111 217 568
JAS-ANZ Accreditation No. Z4450210AK
PO Box 7144, Sippy Downs Qld 4556
+61 (07) 5445 2199
www.CertMark.org

Certificate Holder:

Metecno Pty Ltd
T/A Metecno, Bondor®
ABN: 44 096 402 934
103 Ingram Road, Acacia Ridge Qld 4110
Ph: +61 7 3323 8555
www.bondor.com.au

Certificate number: CM40183 Rev2

THIS IS TO CERTIFY THAT

MetecnoSpan®

Type and/or use of product:

Insulated roof/ceiling or wall panel.

Description of product:

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

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
			P2.2.2	Weatherproofing – Limited to roof applications only. Refer Limitations & Conditions No. 8.
Deemed-to-Satisfy Provision(s):	C1.10(a)(ii)	Fire Hazard Properties – Refer A3.	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.
	F1.5	Weatherproofing – Limited to roof applications only.	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.
	J1.3	Energy Efficiency – Roof and ceiling construction. 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.
	J1.5	Energy Efficiency – Wall construction. 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: 03/06/2022

Date of expiry: 23/03/2024

Certificate of Conformity

Limitations and conditions:

1. This product has not been subject to AS 1530.1-1994 (R2016) testing and cannot be considered to be a non-combustible material.
2. 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.
3. 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.
4. 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 AS 5637.1:2015 as either Group 2 or Group 1 depending on the construction detail, refer A3.
5. The structural support members are designed and engineered separately as per project requirements by building designers and engineers.
6. The size and location of any penetration through the MetecnoSpan® roof panels must be in accordance with Drawing PIR13-RP01-00 ROOF PENETRATIONS - METECNOSPAN - R0. 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 MetecnoSpan® roof and 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 referenced in A3.
8. 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.
9. 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.
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.

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. 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.

APPENDIX A – PRODUCT TECHNICAL DATA

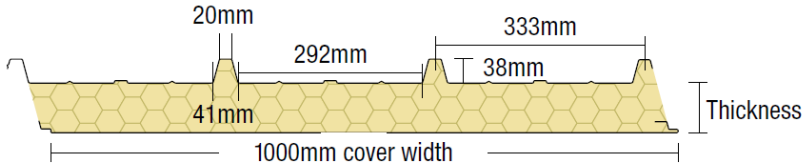
A1 Type and intended use of product

As per page 1.

A2 Description of product

Core	PIR (Polyisocyanurate)
Width (cover mm)	1000
Thickness (mm)	40, 60, 80 & 100
Length	Up to 25m
External Material	0.42mm Colorbond® steel
Internal Material	0.5mm G300 Colorbond® steel
Pitch	2° Minimum

Dimensions



Source: *Certificate Holder*

A3 Product specification

Structure & Weatherproofing

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.

Span Tables

Document Name	Version
METECNOSPAN® SPAN TABLES FOR WIND REGION A – NON-CYCLONIC (EXTERNAL ROOF APPLICATIONS ONLY) PIR Core 0.42mm hi-tensile / 0.5mm steel skins	6
METECNOSPAN® SPAN TABLES FOR WIND REGION B – NON-CYCLONIC (EXTERNAL ROOF APPLICATIONS ONLY) PIR Core 0.42mm hi-tensile / 0.5mm steel skins	6
METECNOSPAN® SPAN TABLES FOR WIND REGION C – CYCLONIC (EXTERNAL ROOF APPLICATIONS ONLY) PIR Core 0.42mm hi-tensile / 0.5mm steel skins	5
METECNOSPAN® SPAN TABLES FOR WIND REGION D – CYCLONIC (EXTERNAL ROOF APPLICATIONS ONLY) PIR Core 0.42mm hi-tensile / 0.5mm steel skins	5
METECNOSPAN® SPAN TABLES FOR WIND REGION A – NON-CYCLONIC (EXTERNAL ROOF APPLICATIONS ONLY WITH 25kg DEAD LOAD) PIR Core 0.42mm hi-tensile / 0.5mm steel skins	5
METECNOSPAN® SPAN TABLES FOR WIND REGION B – NON-CYCLONIC (EXTERNAL ROOF APPLICATIONS ONLY WITH 25kg DEAD LOAD) PIR Core 0.42mm hi-tensile / 0.5mm steel skins	5
METECNOSPAN® SPAN TABLES FOR WIND REGION C – CYCLONIC (EXTERNAL ROOF APPLICATIONS ONLY WITH 25kg DEAD LOAD) PIR Core 0.42mm hi-tensile / 0.5mm steel skins	4
METECNOSPAN® Roof Span Table for Housing Application	5
METECNOSPAN® SPAN TABLES FOR WIND REGION A – NON-CYCLONIC (EXTERNAL WALL APPLICATIONS ONLY) PIR Core 0.42mm hi-tensile / 0.5mm steel skins	1
METECNOSPAN® SPAN TABLES FOR WIND REGION B – NON-CYCLONIC (EXTERNAL WALL APPLICATIONS ONLY) PIR Core 0.42mm hi-tensile / 0.5mm steel skins	1
METECNOSPAN® SPAN TABLES FOR WIND REGION C – NON-CYCLONIC (EXTERNAL WALL APPLICATIONS ONLY) PIR Core 0.42mm hi-tensile / 0.5mm steel skins	1
METECNOSPAN® SPAN TABLES FOR WIND REGION D – NON-CYCLONIC (EXTERNAL WALL APPLICATIONS ONLY) PIR Core 0.42mm hi-tensile / 0.5mm steel skins	1

Penetrations

In order to maintain compliance with structure, the following document must be referred to which have been certified by a licensed Professional Engineer; Drawing PIR13-RP01-00 ROOF PENETRATIONS - METECNOSPAN - R0. The adequacy of the size, location and spacing of any penetrations outside the scope of this document through the MetecnoSpan® panel must be confirmed by a structural engineer.

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 ($SMOGRA_{RC}$) 3.7 m^2/s^2 x 1000

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

Group 2 – Panels 40mm to 100mm thick

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

Smoke Growth Rate Index ($SMOGRA_{RC}$) = 21.1 m^2s^{-2} x 1000

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

Group 2 – Panels 40mm 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 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 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 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 centres.

Smoke Growth Rate Index (SMOGRARC) = 47 m^2s^{-2} x 1000

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

Thermal & Energy Efficiency

Declared & Total R-values for Nominal Sizes of MetecnoSpan® – ROOFS

Thickness (mm)	$\lambda_{declared}$ at 23°C (W/m.K)	$R_{declared}$ at 15°C (m^2K/W)	$R_{declared}$ at 23°C(m^2K/W)	Total R-value (m^2K/W) at		
				6°C	15°C	30°C
40	0.023	1.95	1.85	2.20	2.10	2.00
60	0.023	2.90	2.75	3.20	3.05	2.87
80	0.023	3.80	3.65	4.19	4.00	3.74
100	0.023	4.75	4.55	5.18	4.94	4.61

Declared & Total R-values for Nominal Sizes of MetecnoPanel® – WALLS

Thickness (mm)	$\lambda_{declared}$ at 23°C (W/m.K)	$R_{declared}$ at 15°C (m^2K/W)	$R_{declared}$ at 23°C(m^2K/W)	Total R-value (m^2K/W) at		
				6°C	15°C	30°C
40	0.023	1.95	1.85	2.21	2.11	1.96
60	0.023	2.90	2.75	3.21	3.06	2.83
80	0.023	3.80	3.65	4.20	4.01	3.70
100	0.023	4.75	4.55	5.19	4.95	4.57

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 NCC 2019 Volumes One and Two.

Source: *James Fricker Report No. i265e dated 15/12/2020.*

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.

A6 Other relevant technical data

Acoustic Performance

40mm MetecnoSpan® panel achieved R_W 25, C -2 & C_{tr} -3
100mm MetecnoSpan® panel achieved R_W 24, C -1 & C_{tr} -3

Source: *CSIRO Report No. TL484 dated March 2008.*

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

B2 Reports

1. Bligh Tanner; Reference No. 2017.0493; Certification of MetecnoSpan® Panel Span Tables in accordance with AS 1562.1, AS/NZS 1170.0, AS/NZS 1170.1, AS/NZS 1170.2, AS 4055 & AS 4040.1; Dated 26/03/2021.
2. 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.
3. Ignis Solutions; Report No. 5396 I02 R01; Product Evaluation - MetecnoSpan® 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.
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.

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