

## METECNOPANEL® PIR PANELS

### PURPOSE

MetecnoPanel® PIR Panels are supplied by Metalcraft Insulated Panels for use as self-supporting, insulated, fire-resistant, fully finished wall and roof panels.

### EXPLANATION

MetecnoPanel® is manufactured in Australia. The panels have a polyisocyanurate (PIR) foam core with factory laminated COLORBOND®-coated, internal and external facings.

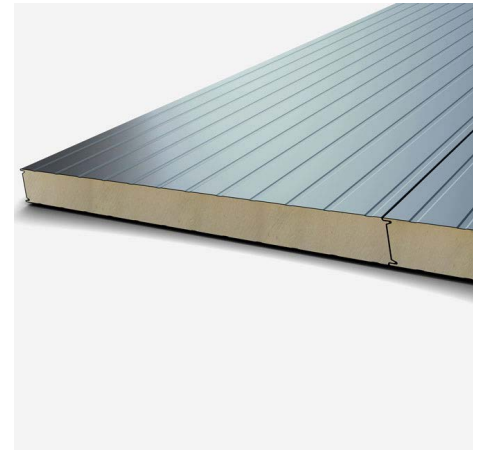
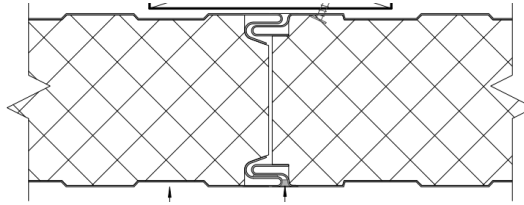
The facings are 0.5 mm hot-dipped, zinc-coated structural steel formed with an indented Micro V Rib, Satinline, or Finline profile.

The panels have a labyrinth joint that provides for both the metal and insulation to join, to provide positive sealing in cold storage applications and a weathertight junction when used as part of the external envelope.

The panels are available in:

- Thicknesses (mm): 50, 75, 100, 150, 200
- Width (mm): 1100
- Length (mm): Maximum 11.8.

The panels are supplied with ancillary components necessary for installation.



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### SCOPE AND LIMITATIONS OF USE

Scope	Limitations
<b>Location</b> In wind zones up to and including extra high wind zone as defined in NZS 3604:2011 or a permissible wind design pressure (ULS) of 2.5 kPa. In all exposure zones as defined in NZS 3604:2011. Any distance from a relevant boundary.	<ul style="list-style-type: none"> <li>➤ Where the panels are to be used in a micro-climate (as defined in paragraph 4.2.2 of NZS 3604:2011), Metalcraft Insulated Panels is to be consulted.</li> <li>➤ The panels may only be installed within 1 m of a relevant boundary where an unprotected area is permitted. In this case the design must be in accordance with C/AS2 or specifically fire engineered.</li> </ul>
<b>Building</b> In all building uses. In new buildings where the relevant part of the building complies with the NZ Building Code, or in existing buildings where the designer and installer have assured themselves that the relevant part of the building is adequate for the intended building work. In buildings with a minimum roof pitch of 3°, where used as part of a roof panel system. Any building height up to a permissible design wind pressure of 2.5 kPa. As internal and external wall panels.	<ul style="list-style-type: none"> <li>➤ With joinery that meets NZS 4211.</li> <li>➤ With a concrete, steel or timber subfloor and flooring structure, where panels are to be load-bearing.</li> <li>➤ Where material group 1S or greater is required.</li> <li>➤ Where compliance with NZS Building Code clause G3.3.2 (a and b) is required, COLORBOND® Permagard® must be specified as the internal lining to the panel.</li> <li>➤ In buildings that require fire-resistance rating (FRR) for passive fire protection, the passive fire protection systems must be specifically designed.</li> <li>➤ The span to be in accordance with the MetecnoPanel® span tables contained in 'MetecnoPanel® Loadspan and Technical Information' (Metalcraft Insulated Panels, July 2020).</li> <li>➤ Where the building has a building height greater than 10 m and upper floors contain sleeping uses or other property, then the external wall must be subject to specific fire engineering design in respect of vertical spread of flame.</li> </ul>

### USEFUL INFORMATION

For information on the design, installation and maintenance of MetecnoPanel® and for our warranty refer to [www.metalcraftgroup.co.nz](http://www.metalcraftgroup.co.nz).

### OTHER CERTIFICATIONS AND APPROVALS HELD BY THE STEEL MANUFACTURER

BlueScope, manufacturer of COLORBOND® provides assurances that the steel

- Has been manufactured in accordance with AS 1397-2001.
- Is coated in accordance with AS/NZS 2728:2013 or galvanised in accordance with AS/NZS 2312.2:2014.

## PERFORMANCE CLAIMS

If designed, installed and maintained in accordance with all Metalcraft Insulated Panels requirements, MetecnoPanel® will comply with or contribute to compliance with the following performance claims:

NZ Building Code clauses	Compliance statement	BASIS OF COMPLIANCE Demonstrated by
<b>B1 Structure</b> B1.3.1, B1.3.2, B1.3.3 (a, b, c, e, f, i, j, l, m, q), B1.3.4 (a, b, c, d, e)	ALTERNATIVE SOLUTION	<ul style="list-style-type: none"> <li>➤ Evaluation by Global-Mark for Product Certification, Metalcraft Insulated Panel System Certificate of Conformity GM-CM30078-RevC, issued by Global-Mark [Global-Mark, 05/02/2020].</li> <li>➤ Loadspan capacities for permissible wind pressure up to 2.5 kPa [MetecnoPanels, July 2020].</li> </ul>
<b>B2 Durability</b> B2.3.1 (a)	ALTERNATIVE SOLUTION	<ul style="list-style-type: none"> <li>➤ COLORBOND® coated in accordance with AS/NZS 2728:2013.</li> </ul>
<b>C3 Fire affecting areas beyond the fire source</b> C3.4 (a)	ACCEPTABLE SOLUTION C/AS2 1 <sup>st</sup> edition June 2019	<ul style="list-style-type: none"> <li>➤ Steel is non-combustible, refer to definitions C/AS2.</li> <li>➤ FM Approval, Approvals Standard 4881.</li> </ul>
<b>E2 External moisture</b> E2.3.1, E3.2.3, E2.3.3, E2.3.4, E2.3.7 (a, b, c)	ALTERNATIVE SOLUTION	<ul style="list-style-type: none"> <li>➤ WEC. AS/NZS 4284:2008 Test Report 1437. [June/2016].</li> <li>➤ WEC is accredited by IANZ.</li> </ul>
<b>E3 Internal moisture</b> E3.3.1, E3.3.4, E3.3.5, E3.3.6	ACCEPTABLE SOLUTION E3/AS1	<ul style="list-style-type: none"> <li>➤ COLORBOND®-coated steel is impervious.</li> <li>➤ PIR core has an insulation value (refer to H1).</li> </ul>
<b>F2 Hazardous Building Materials</b> F2.3.1	ALTERNATIVE SOLUTION	<ul style="list-style-type: none"> <li>➤ Coating system is inert once dry.</li> </ul>
<b>G3 Food preparation and prevention of contamination</b> G3.3.2 (a, b)		<ul style="list-style-type: none"> <li>➤ COLORBOND® Permagard® certified by HACCP Australia as part of Food Safety Programme.</li> </ul>
<b>H1 Thermal efficiency</b> H1.3.1 (a, b), H1.3.2E, H.1.3.3 (c, e)	ACCEPTABLE SOLUTION H1/AS1	<ul style="list-style-type: none"> <li>➤ PIR core R value of 5.11 for 100 mm thick panel.</li> </ul>

Other performance statement	Performance statement	BASIS OF STATEMENT Demonstrated by
MetecnoPanel® will not contaminate potable water		BRANZ statement that the metal roof is suitable. Refer to BRANZ statement that the metal roof is suitable: <a href="http://www.level.org.nz/water/water-supply/mains-or-rainwater/harvesting-rainwater">http://www.level.org.nz/water/water-supply/mains-or-rainwater/harvesting-rainwater</a> .

## SOURCES OF INFORMATION

- BRANZ. [17 April 2019] *Type Test AS ISO 9705 & AS ISO 9705 Fire Test of Thermopanel PIR*. Report no. FI11055-001.
  - BRANZ. [5 August 2013] *Fire Test Report AS ISO 9705 & AS ISO 9705 Fire Test on Metalcraft Insulated Panel System*. Project no. FT5050.
  - FM Approvals. [18 June 2013] *Certificate of Compliance - FM approval of MetecnoPanel and MetecnoSpan Wall Panels in Accordance with FM Approval Standard 4881*. Approval Identification: 0003044255.
  - HACCP Australia. [2 July 2018] *HACCP based Food Safety Programme*. Held by Blue Scope Steel Limited for Colorbond® Permagard® Anti-bacterial Treated, Coated Steel Panels. Cert no. PE-591-BS-07.
  - Metalcraft Insulated Panels. [July 2020] *MetecnoPanel® Loadspan and Technical Information*. Retrieved from <https://www.metalcraftgroup.co.nz/products/metal-insulated-panels/products/metecnopanel-pir/>. [Accessed on 03/06/2021].
  - Metalcraft Insulated Panels. [August 2018] *MetecnoPanel® External Wall Details*.
  - Retrieved from <https://www.metalcraftgroup.co.nz/products/metal-insulated-panels/products/metecnopanel-pir/>. [Accessed on 03/06/2021].
  - Window Engineering Consultants (WEC). [June 2016] *Performance tests on Metalcraft Insulated Panel façade system in accordance with AS/NZS 4284:2008 'Testing of Building Façades'*. Report no. 1437.
1. Where a standard is referenced it is to be read as amended by the acceptable solution or verification method as applicable.
  2. Sources of information also include the Building Act 2004 and its regulations, including the Building Code (Schedule 1 of the Building Regulations 1992), Acceptable Solutions and Verification Methods, and relevant cited standards.

Metalcraft Insulated Panels confirms that if Metecnospan is used in accordance with the requirements of this pass™ the product will comply with the Building Code and other performance claims set out in this pass™ and the company has met all of its obligations under s14 G of the Building Act.

**Date of first issue:**

**Date of current issue:**

**NZBN:** 9429036310852

*Kevin Brunton*

Kevin Brunton, Technical Director, TBB confirms that this pass has been prepared on behalf of the Metalcraft Insulated Panels and in accordance with MBIE PTS guidelines and in accordance with the TBB pass™ process which is within the scope of TBB's ISO 9001 certification.

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