

CLASS 1

VERSION 1.0 ISSUE DATE: FEBRUARY 2024

**PRODUCT NAME**

Metalcraft Insulated Panels - **MetecnoPanel®**

**PRODUCT LINE**

N/A

**PRODUCT DESCRIPTION AND ITS INTENDED USE**

MetecnoPanel® PIR insulated panels are manufactured using a fire-retardant PIR core laminated to Australian-made BlueScope® COLORBOND® Insulated Panel steel manufactured to AS1397.

**INTENDED USE:**

MetecnoPanel® is a durable, insulated wall and ceiling panel with a PIR (Polyisocyanurate) fire-retardant core and high performing thermal properties. MetecnoPanel® is FM Approved to FM 4880 & 4881 - No Height Restriction and is recommended where improved fire performance is required for insurance purposes. MetecnoPanel® is available in a variety of panel surface profiles.

MetecnoPanel® Zero Ozone Depleting Potential (ODP)

MetecnoPanel® is FM Approved to FM 4880 (No Height Restriction).

FM 4880 Approved Class 1 - Unlimited Height.  
 FM 4881 Approved Class 1 - Unlimited Height.



**MATERIAL OPTIONS:**

**EXTERNAL SKIN:**

BlueScope® Steel 0.5mm (STANDARD) 0.6mm G300S Z275 BF. The correct selection is dependent on the environmental category.

**INTERNAL SKIN:**

BlueScope® Steel 0.5mm (STANDARD), 0.6mm G300S Z75 BF

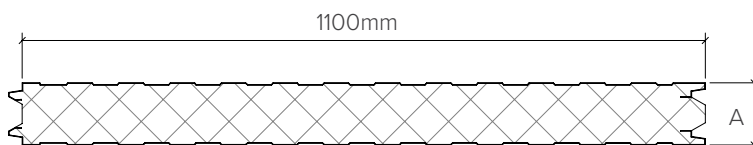
COLORBOND® steel for insulated panels (XIP) is designed by Bluescope for the manufacture of insulated sandwich panels.

**BPIS INCLUSION / EXCLUSION**

This BPIS includes Metalcraft Insulated Panels -MetecnoPanel® and associated flashings and other items manufactured and or supplied by Metalcraft Insulated Panels and or Metalcraft Roofing.

Metalcraft Insulated Panels supply fasteners aluminium extrusions and ancillaries as part of the roofing supply, however demonstration of compliance of these items are not the responsibility of Metalcraft Insulated Panels.

**PRODUCT IDENTIFIER**

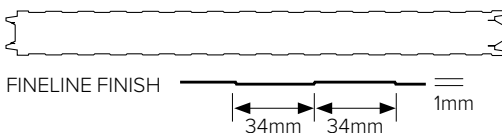
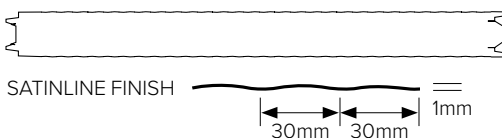
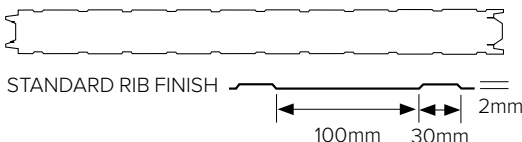
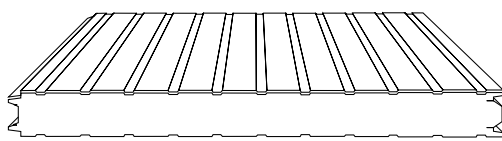


A= 50, 75, 100,125, 150, 200mm thick

Dimensions, cover and sheet widths are all nominal and may vary with manufacturing and installation tolerances. Line drawings are indicative only and should not be scaled, if other dimensions are required please ask for them from Metalcraft Insulated Panels.

**INNER PROFILE OPTIONS**

MetecnoPanel® is available with different inner skins.



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RELEVANT BUILDING CODE CLAUSES:

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**B1 STRUCTURE:**

B1.3.3 (c), (h) & (j)

**B2 DURABILITY:**

B2.3.1 (b), B2.3.2 (b)

**C3 FIRE:**

C3.4 (a)

**E2 EXTERNAL MOISTURE:**

E2.3.2

**F2 HAZARDOUS BUILDING MATERIALS:**

F2.3.1

**H1 ENERGY EFFICIENCY:**

H1.3.1(a)

STATEMENT ON HOW THE BUILDING PRODUCT IS EXPECTED TO CONTRIBUTE TO  
COMPLIANCE:

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Metalcraft Insulated Panels, MetecnoPanel® profile and associated flashings used in combination with fasteners, and translucent sheeting accredited by NZMRM as complying to their products performance standards, will contribute to meeting the following performance requirements of the NZ Building Code.

**B1.3.3 (a), (b), (c), (g), (h) & (j)**

Metalcraft Insulated Panels sister company MetecnoPIR has obtained Codemark Australia Certification - Certificate Number: CM40196 Rev 2. Span tables as cited in this document have been certified by a Licensed Professional Engineer in accordance with AS1562.1 AS/NZS 1170.0, AS/NZS 1170.1, AS/NZS 1170.2, AS4055 & AS4040.1.

The panel design shall be specified by the certifying engineer as determined from the MetecnoPanel® Tables. The certifying engineer must satisfy themselves that the above information pertaining to the span capability and performance of MetecnoPanel® and the correct selection of product thickness is specified for the specific project and satisfies the NZBC requirements.

**FOR FM APPROVED APPLICATIONS ONLY:**

MetecnoPanel® tested by FM APPROVAL, FM APPROVALS STANDARD 4881.

a) a max. span of 1830mm applies.

b) approved fasteners must be used. Refer Metecno®.

Loadspan and fixing patterns links are available from the MetecnoPanel® Codemark Australia Certificate as cited above, which is available for download from: <https://www.metalcraftinsulatedpanels.co.nz/>

STATEMENT ON HOW THE BUILDING PRODUCT IS EXPECTED TO CONTRIBUTE TO COMPLIANCE:

**B2.3.1 (b), B2.3.2 (b)**

**EXTERNAL SKIN:**

COLORBOND® steel for insulated panels (XIP) is designed by Bluescope for the manufacture of insulated sandwich panels. Paint coating consistent with AS/NZS 2728:2013 - Product Type 3, substrate is consistent with AS 1397:2021.

**Limitations of use in NZ environmental categories, suitable for product type 3 and is dependent on environmental categories. Refer to Metalcraft Insulated Panels for Durability of MetecnoPanel®.**

Above cited in Bluescope COLORSTEEL® STEEL for insulated panels:

<https://cdn.dcs.bluescope.com.au/download/tb-31>

**INTERNAL SKIN:**

COLORBOND® steel for insulated panels (XIP) is designed by Bluescope for the manufacture of insulated sandwich panels. Paint coating COLORBOND® Intramax® steel consistent with AS/NZS 2728:2013 - Product Type 3, substrate is consistent with AS 1397:2021.

**Limitations of use in NZ environmental categories, suitable for product type 3 and is dependent on environmental categories. Refer to Metalcraft Insulated Panels for Durability of MetecnoPanel®.**

Above cited in Bluescope COLORSTEEL® STEEL for insulated panels

<https://cdn.dcs.bluescope.com.au/download/tb-31>

Flashings to be COLORSTEEL® MAXX® G300 or consistent with AS 1397. Metallic coating is AZ 200 consistent with AS 1397. MAXX® is Product Type 6 consistent with AS/NZS 2728:2013 and therefore is consistent with the NZ Building Code for use in environments.

Fixings of MetecnoPanel® to be in accordance with E2/AS1 and NZMRM Code of Practice and be compatible with the base material and environmental categories.

**C3.4 (a)**

**GROUP 2S:**

MetecnoPanel® PIR steel skinned insulated building panels as cited in MetecnoPanel Codemark Australia Certificate has been determined that the Group number 2 are in accordance with testing conducted to AS ISO 9705:2003(R2016)

Redco engineering

**GROUP 1S:**

Brnz Report No FC1419-01 Issue 3 dated 20/01/2023 determined Group 1S, installation must be in accordance with MetecnoPanel®.

Above cited documents can be downloaded from [www.metalcraftinsulatedpanels.co.nz](http://www.metalcraftinsulatedpanels.co.nz)

**FM APPROVAL**

MetecnoPanel® has FM Approval, FM Approvals Standard 4880 and 4881. FM Approval certification is owned by:

Metecno Pty Ltd T/A Bondor Australia  
111 Ingram Road  
Acacia Ridge  
Brisbane, Queensland 4110  
Australia

Above cited documents can be downloaded from [www.metalcraftinsulatedpanels.co.nz](http://www.metalcraftinsulatedpanels.co.nz)

### **E2.3.1, E2.3.2**

Flashing details should be in accordance with Metalcraft Insulated Panels MetecnoPanel® installation details. Flashing cover dimensions in accordance with NZMRM Code of Practice. MetecnoPanel® has an external asymmetrical trapezoidal steel skin and can be laid on pitches equal to or greater than those cited in NZMRM Code of Practice, minimum pitch for MetecnoPanel is 3° after deflection as per NZMRM Code of Practice -minimum pitch for trapezoidal profiles.

MetecnoPanel® Codemark Australia Certification - Certificate Number: CM40196 Rev 2 has evaluated MetecnoPanel® weather performance of roof and wall cladding.

### **F2.3.1**

COLORBOND® steel and COLORBOND® Ultrasteel® will meet the performance requirements of F2, 2.3.1.

### **H1.3.1(a)**

MetecnoPanel® Codemark Australia Certification - Certificate Number: CM40196 Rev 2 has published and Declared and Total R values are in accordance with AS/ NZS 4859.1 & 2:2018.

The Codemark Australia Certificate as cited above, is available for download from: <https://www.metalcraftinsulatedpanels.co.nz/>

### **OTHER:**

MetecnoPanel® has been tested in accordance with the requirements of AS 1191. The Weighted Sound Reduction Index (Rw) of the panel is calculated using AS/NZS 1276 and AS/NZS ISO 717.1 respectively with acoustic values of Rw 24 - 25 depending on thickness.

## LIMITATIONS ON THE USE OF THE BUILDING PRODUCT:

- MetecnoPanel® should be used in accordance with the MetecnoPanel® Codemark Australia Certification - Certificate Number: CM40196 Rev 2.
- Should be used within the bounds of MetecnoPanel's product literature, unless supported by design from a suitably qualified design Engineer.
- Fire engineers must satisfy themselves and sign off that the product is suitable for use -Less than 1m to the boundary and on buildings above 10m.
- MetecnoPanel® can be used on SED projects if within the scope of NZMRM Code of Practice for flashing cover dimensions and suitability of use and where the design loads are within the products performance. Refer to Metalcraft Roofing's Installation Details and loadspan and fixing tables for product limitations. Fixings of MetecnoPanel® into SED projects and outside the scope of NZMRM Code of Practice will require sign off from a professional engineer.
- To be used in situations where there are no dissimilar metals or compatibility issues as per NZMRM Code of Practice and Table 20 E2/AS1.
- When installed as a roof cladding, laid to a minimum pitch of 3° after deflection.
- End lapped up to 16m then step joint.
- Only use product in correct environmental categories for a product type 3.
- MetecnoPanel® is designed for internal and external walls and ceilings only, Where MetecnoPanel® is considered for external roofs then please consult Metalcraft Insulated Panels for more information.

## DESIGN REQUIREMENTS THAT WOULD SUPPORT THE APPROPRIATE USE OF THE BUILDING PRODUCT

- Under certain light conditions this product may show an undulating surface which can vary depending on exterior profile and steel gauge selection as well as the environments varying light conditions.
- Limited COLORBOND® colours are used for MetecnoPanel®, the colours available can be downloaded from [www.metalcraftinsulatedpanels.co.nz](http://www.metalcraftinsulatedpanels.co.nz)
- Colour variations should be considered between COLORBOND® used for MetecnoPanel® and COLORSTEEL® MAXX® flashings. Contact Metalcraft Insulated Panels for more information.
- Buildings that comply with NZS 3604:2011 and building height up to three storeys or 10 m.
- For SED building height may go above 10m, to max performance of the MetecnoPanel® profile and in design wind speeds as covered by NZMRM Code of Practice.
- The support spacing shall be specified by a suitably qualified design Engineer and determined from the Span Tables.
- Buildings designed in accordance with NZS 1170:2:2002.
- Timber framed construction in accordance with NZS 3604:2011.
- Steel framed structures in accordance with NASH Standard Part 1:2016 Design Criteria - Alternative Solution and NASH Standard Part 2:2019 Light Steel Framed Buildings. MetecnoPanel Zero Ozone Depleting Potential (ODP)
- MetecnoPanel® has been tested in accordance with the requirements of AS 1191. The Weighted Sound Reduction Index (Rw) of the panel is calculated using AS/NZS 1276 and AS/NZS ISO 717.1 respectively with acoustic values of Rw 24 - 25 depending on thickness.
- Sealant to be neutral cure and meet recommendations for sealants as per BlueScope TB-9 Sealants for Exterior Finishes. Silicon, polyurethane, butyl mastic and acrylic based sealants may be appropriate if neutral cure and recommended by their manufacturer for use on COLORBOND® steel and for the application. Sealant required as per MetecnoPanel® Installation Details.
- Fixings of MetecnoPanel® to be in accordance with E2/AS1 and NZMRM Code of Practice and be compatible with the base material.
- Side laps stitched at 450mm centres.
- Maximum sheet lengths of MetecnoPanel® is 11.9m as its imported from MetecnoPIR -Australia, end laps may be formed by either standard expansion step. End laps as per MetecnoPanel® installation details.

## INSTALLATION REQUIREMENTS

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- Installation should be carried out by a suitably qualified practitioner.
- Installation as per the MetecnoPanel® installation details.
- Panels are to be cut & trimmed to ensure a flush finish.
- Panels are to be confirmed square & plumb as per project requirements.
- Panels are to be cut with a suitable metal cutting circular type saw. Angle grinder is not recommended.
- Appropriate lifting equipment to be used for roof panels.
- Fasteners are to be installed without overtightening to prevent distortion of panel surfaces. Ensure weathertight contact of washer seal with panel surface.
- All accessories must be compatible material properties with BlueScope COLORBOND® Steel.
- Penetrations for outlets, vents, flues etc. are to be flashed & sealed with appropriate materials. Refer MetecnoPanel® Installation Details.
- Gaps to be filled with a suitable sealant or foam filler. Refer to MetecnoPanel®.
- Refer to MetecnoPanel® Installation Details for fastener requirements.
- Remove all swarf and any foreign matter immediately from all panel surfaces as per BlueScope TB-5 Swarf staining of steel profiles.

## IS THE BUILDING PRODUCT/BUILDING PRODUCT LINE SUBJECT TO A WARNING OR BAN UNDER SECTION 26 OF THE BUILDING ACT 2004:

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### **NO**

Metalcraft Insulated Panel - Metecno products are not subject to a warning or ban under the Building Act 2004.

## MAINTENANCE REQUIREMENTS

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Refer to Metalcraft Insulated Panels Maintenance guide  
<https://www.metalcraftinsulatedpanels.co.nz/>

Refer also to BlueScope TB-4 Maintenance of COLORBOND® and Zinalume® Steel and the relevant MetecnoPIR® maintenance information.

<https://steel.com.au/>

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## SUPPORTING INFORMATION

The following documents can support demonstration of compliance of MetecnoPanel® products with the NZ Building Code.

### **BUILDING ACT 2004**

[www.legislation.govt.nz](http://www.legislation.govt.nz)

### **METECNO**

Codemark Australia -Certificate CM40183

MetecnoPanel® MetecnoPanel® FM4881 Certificate - 3044255coc (1)

MetecnoPanel® MetecnoPanel® FM4880 Certificate - 3023808coc (2) (1) (1)

### **BLUESCOPE**

COLORBOND® steel for roofing and walling (XRW) Datasheet May 2023

COLORBOND® Ultra steel (ULT) Datasheet May 2023

Environmental Management system conforming to ISO 14001:2015

<https://www.bluescope.com/>

<https://steel.com.au/>

Download from:

<https://www.metalcraftinsulatedpanels.co.nz/>

Build-151-26-Build-Right-Collecting-Drinking-Water-From-Roofs

<https://www.buildmagazine.org.nz/>

## LEGAL ENTITIES:

### **METALCRAFT INSULATED PANELS LIMITED**

NZBN: 9429036310852

Level 1, 30 Highbrook Drive, East Tamaki Auckland

TRADING NAME / ADDRESS FOR SERVICE:

Metalcraft Insulated Panels

139 Roscommon Road

Wiri

Auckland

[www.metalcraftinsulatedpanels.co.nz](http://www.metalcraftinsulatedpanels.co.nz)

## METECNOPANEL® IS MANUFACTURED AND SOURCED FROM

MetecnoPanel® is manufactured from:

### **METECNOPIR – QLD**

111 Ingram Road

Acacia Ridge QLD 4110

### **METECNOPIR – VIC**

9-27 Amcor Way

Campbellfield VIC 3061

<https://www.metecnopir.com.au/>

## DISCLAIMER

This Building Product Information Sheet must be read in conjunction with all cited documents.

Metalcraft Insulated Panels Limited states that the product will, if installed in accordance with the technical data, specifications, and advice prescribed by Metalcraft Insulated Panels, MetecnoPir (Aus) and Bluescope (Aus) comply with the relevant provisions of the building code and satisfy our obligation to meet S14G of the Building Act 2004.

It remains the responsibility of all other professional parties to ensure they satisfy their own obligation of the Building Act 2004.

As part of Metalcraft Insulated Panels policy of continued improvement, final specifications may vary from those contained in this publication. The company reserves the right at any time and without notice to change the design, materials or features and withdraw products from the market without incurring any liability whatsoever.

Insulated Panel Council Australasia Ltd (IPCA Ltd) is a not for profit and third party certification industry body for Manufacturers, Installers and Distributors of Insulated Sandwich Panel products throughout Australasia.

For more information on IPCA visit:

[www.insulatedpanelcouncil.org](http://www.insulatedpanelcouncil.org)



Metalcraft Insulated Panels are members of the Roofing Association, New Zealand.

