

CLASS 1

VERSION 1.0 ISSUE DATE: FEBRUARY 2024

PRODUCT NAME

Metalcraft Insulated Panels - **Metecnospan®**

PRODUCT LINE

N/A

PRODUCT DESCRIPTION AND ITS INTENDED USE

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

INTENDED USE:

MetecnoSpan® is a roofing system that combines the roofing, insulation and ceiling in one roof panel with a fire-retardant polyisocyanurate (PIR) core. MetecnoSpan® is FM Approved (4880, 4881 & 4471) and is recommended where FM Approved products is required. MetecnoSpan® is capable of long spans and high thermal performance and is used mainly in commercial and industrial roofing applications.

MetecnoSpan® Zero Ozone Depleting Potential (ODP)

MetecnoSpan® is FM Approved to FM 4880 (No Height Restriction) and FM 4471 (External Wall and Roof Endurance Standard).

FM 4880 Approved Class 1 - Unlimited Height.
 FM 4881 Approved Class 1 - Unlimited Height.
 FM 4471 Approved Class 1 - External roof and wall endurance standard.



MATERIAL OPTIONS:

EXTERNAL SKIN:

0.42mm high tensile G550 COLORBOND® steel and COLORBOND® ULTRASTEEL®. The correct selection is dependent on the environmental category.

INTERNAL SKIN:

0.50mm G300, Z275 coated steel

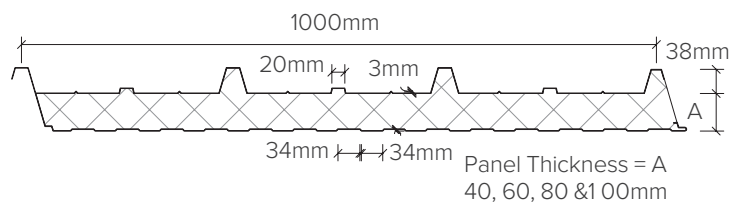
COLORBOND® steel combines an aluminium/zinc/magnesium alloy-coated steel substrate with a range of factory applied high-durability coating systems to cope with exposure to various environments.

BPIS INCLUSION / EXCLUSION

This BPIS includes Metalcraft Insulated Panels -Metecnospan® 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

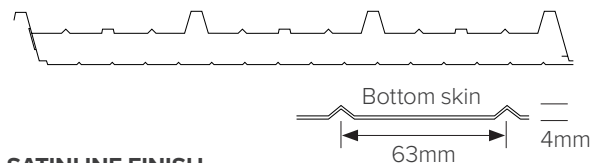


Dimensions, cover and sheet widths are all nominal and may vary with manufacturing and installation tolerances. Line drawings are indicative only and should not be scaled, if other dimensions are required please ask for them from Metalcraft Insulated Panels.

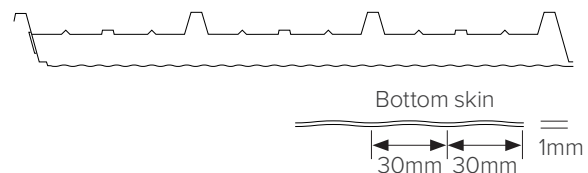
INNER PROFILE OPTIONS

MetecnoSpan® is available with different inner skins.

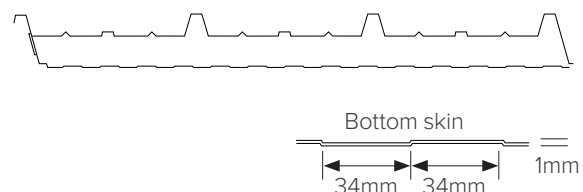
MICRO V FINISH



SATINLINE FINISH



FINELINE FINISH



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RELEVANT BUILDING CODE CLAUSES:

B1 STRUCTURE:

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

B2 DURABILITY:

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

C3 FIRE:

C3.4 (a)

E2 EXTERNAL MOISTURE

E2.3.1, 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:

Metalcraft Insulated Panels, MetecnoSpan® 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: CM40183 Rev 4. 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 MetecnoSpan® Tables. The certifying engineer must satisfy themselves that the above information pertaining to the span capability and performance of MetecnoSpan® and the correct selection of product thickness is specified for the specific project and satisfies the NZBC requirements.

FOR FM APPROVED APPLICATIONS ONLY:

MetecnoSpan® 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 MetecnoSpan® 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:

Comprises of COLORBOND® STEEL AM100 G550 with Activate® technology or COLORBOND® ULTRASTEEL®- AM150 G550S STEEL are both Product Type 4, consistent with AS/NZS 2728:2013 consistent with AS 1397:2021. Selection is dependent on environmental categories.

INTERNAL SKIN:

Comprises of COLORBOND® STEEL AM100 G300 with Activate® technology is a Product Type 4, consistent with AS/NZS 2728:2013 consistent with AS 1397:2021. Selection is dependent on environmental categories.

Above cited in Bluescope COLORSTEEL® STEEL for roofing and walling:

<https://cdn.dcs.bluescope.com.au/download/colorbondr-steel-data-sheet>

<https://cdn.dcs.bluescope.com.au/download/colorbond-ultra-steel-datasheet>

COLORBOND® STEEL and COLORBOND® ULTRASTEEL® are consistent with the NZ Building Code for use in environments as described in Acceptable Solution E2/AS1 Table 20. Tolerances are consistent with the requirements of AS/NZS 1365:1999.

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 MetecnoSpan® 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)

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

GROUP 1S:

Branz Report No FC1419-01 Issue 3 dated 20/01/2023 determined Group 1S, installation must be in accordance with Metecnospan® Codemark Australia Certificate Number: CM40183 Rev 4.

Above cited documents can be downloaded from www.metalcraftinsulatedpanels.co.nz

FM APPROVAL

MetecnoSpan® has FM Approval, FM Approvals Standard 4880, 4881 and 4471. 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

E2.3.1, E2.3.2

Flashing details should be in accordance with Metalcraft Insulated Panels MetecnoSpan® installation details. Flashing cover dimensions in accordance with NZMRM Code of Practice. MetecnoSpan® 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 MetecnoSpan is 3° after deflection as per NZMRM Code of Practice -minimum pitch for trapezoidal profiles.

MetecnoSpan® Codemark Australia Certification - Certificate Number: CM40183 Rev 4 has evaluated MetecnoSpan® 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)

MetecnoSpan® Codemark Australia Certification - Certificate Number: CM40183 Rev 4 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:

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

LIMITATIONS ON THE USE OF THE BUILDING PRODUCT:

- MetecnoSpan® should be used in accordance with the MetecnoSpan® Codemark Australia Certification - Certificate Number: CM40183 Rev 4.
- Should be used within the bounds of MetecnoSpan'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.
- MetecnoSpan® 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 MetecnoSpan® 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 upto 16m then step joint.
- The correct steel and coating system is dependent onto the environments categories.

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 MetecnoSpan®, the colours available can be downloaded from www.metalcraftinsulatedpanels.co.nz
- Colour variations should be considered between COLORBOND® used for MetecnoSpan® 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 MetecnoSpan® 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. MetecnoSpan Zero Ozone Depleting Potential (ODP)
- MetecnoSpan® 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 MetecnoSpan® Installation Details.
- Fixings of MetecnoSpan® 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 MetecnoSpan® is 11.9m as its imported from MetecnoPIR -Australia, end laps may be formed by either standard expansion step. End laps as per MetecnoSpan® installation details.

INSTALLATION REQUIREMENTS

- Installation should be carried out by a suitably qualified practitioner.
- Installation as per the MetecnoSpan® 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.
- Roof panels to be installed and fit as close and tight as possible.
- Ensure appropriate gutter cutbacks for drainage.
- Roof sheets endlap must be designed and installed with correct roof pitch, water run-off.
- 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 MetecnoSpan® Installation Details.
- Gaps to be filled with a suitable sealant or foam filler. Refer to MetecnoSpan®.
- Refer to MetecnoSpan® 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:

NO

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

MAINTENANCE REQUIREMENTS

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/>

SUPPORTING INFORMATION

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

BUILDING ACT 2004

www.legislation.govt.nz

METECNO

Codemark Australia -Certificate CM40183
MetecnoPanel® MetecnoSpan® FM4881 Certificate -
3044255coc (1)

MetecnoPanel® MetecnoSpan® 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

METECNOSPAN® IS MANUFACTURED AND SOURCED FROM

MetecnoSpan® 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



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

