



METECNOSPAN® and METECNOPANEL Product Technical Statement

INSULATED PANELS EXPLAINED

Metal faced insulated core panels that are manufactured for use as finished roof and wall cladding systems. The physical properties of insulated panels with weathertight tongue and groove edge profile allow for quick and efficient construction. The panels are lightweight, strong, durable and the panel core provides both thermal insulation and fire resistance.

DESCRIPTION & USE:

The Metecno Panel System is a fully finished double sided internal/external wall and roofing system. When installed it may be overlaid with an internal or external lining if an alternative aesthetic appearance is required.

- The Metecno Panel System may be used as a structural panel system or non-load bearing system where fixed to a primary structural frame.
- The Metecno Panel System must be installed using ancillary products supplied with the system.
- The panels are manufactured from a FM Approved PIR core with factory laminated Colorbond profile facings. Refer Metecno Information Brochure from Metalcraft Insulated Panels.

The Metalcraft Insulated Panels are branded as:

- Metecnopanel®
- MetecnoSpan®

System ancillary products supplied as part of the Metalcraft Insulated Panel System are:

- 40 x 40 x 1.6 mm aluminium angles 12 mm hold-down bolts
- 10 mm mushroom bolts
- Flashings
- Silicon sealant
- 4.8 x 14.3 mm (ASMG63.66) aluminium rivets 70 x 50 x 5 mm plate washers
- 14 gauge self-drilling screws with 25 mm steel washer Silicone sealant

SCOPE OF USE:

The Metecno Panel system can be used as a fully finished internal/external wall system within the following scope:

- The Metecno Panel System has been specified and designed in accordance with Metalcraft Insulated Panel technical documentation: www.metalcraftgroup.co.nz.
- Roof pitch a minimum of 3 degrees.
- Sub-floor and flooring structure (concrete, steel or timber) that complies with the NZ Building Code (NZBC).
- In new buildings and the Metecno System is to be used as non-load bearing.
- A timber or steel framed structure that complies with the NZBC.
- Sub-floor and flooring structure (concrete, steel or timber) that complies with the NZBC.
- Existing buildings where the designer and installer are satisfied that the existing building is adequate for the intended building work.
- Joinery that complies with NZS4211:2008.
- Where compliance with G3.3.2(a, b) is required, Colorbond Permaguard must be specified as the internal lining to the panel, this is relevant to Metecnopanel® than MetecnoSpan®.

LOCATION SCOPE:

- Wind zones up to extra high as defined in NZS3604:2011.
- Where specifically designed, up to a maximum design differential ultimate limit state (ULS) of 2.5kPa.
- All corrosion zones as defined in NZS3604:2011. Where the Metecno Panel System is to be used in a micro-climate (as defined in clause 4.2.2, NZS3604:2011, Metalcraft Insulated Panels is to be consulted for technical advice.
- Where the building is located within 1m of the relevant boundary, The Metecno Panel System, may only be used as a non-load bearing external wall cladding system, forming part of the fire rated wall system.

USEFUL LINKS

Information to help with the design and specification of Metalcraft Insulated Panel System refer to:

- MetecnoSpan or Metecnopanel product literature, www.metalcraftgroup.co.nz
- Colorbond product Literature, www.steel.com.au
- MRM Code of practice version 3

COMPLIANCE WITH THE NZ BUILDING CODE

If designed, installed and maintained in accordance with all Metalcraft Panel requirements, the MetecnoSpan® and MetecnoPanel® panels will comply with or contribute to compliance with the following provisions of the NZBC:

B1 - STRUCTURE

AS1397:2011 (claim by Colorbond®) cited in E2/AS1.

Load span tables AS/NZS1170:2002.

- Loadspans as per Metecnospan product literature and if required signed off by an registered engineer (PS1).

B2 DURABILITY:

B2.3.1 (b) Minimum 15 yrs

Colorbond® is owned by Bluescope Steel the same company that owns NZ Steel and they have two coating systems similar to Colorsteel®. Colorbond® Steel is suitable for moderate and severe and Colorbond® Ultra Steel suitable for very severe. For coating options refer to Colorbond technical Statement for either Colorbond® Steel or Colorbond® Ultra.

- Colorbond coated in accordance with AS/NZS 2728:2013. (Colorbond claim) cited in E2/AS1.
Durability 15 years product warranty.

C3 FIRE AFFECTING AREAS BEYOND THE FIRE SOURCE:

C3.4 (a), C3.5, C3.6, C3.7(a), C3.8 & C3.9

Steel non-combustible (per comment section 5.8 C/AS2-C/AS7. However Metecno consists of a PIR core which is combustible and has been tested to ISO 9705 with the following classifications:

GROUP 2S - NZBC

Panel up to 200mm or less with an aluminium 'wall-wall' and 'wall-ceiling' angles (1.5mm) fixed with aluminium rivets or screws is classified as Group 2S.

Panel up to 200mm or less with an aluminium 'wall-wall' and 'wall-ceiling' angles (0.5mm) fixed with steel rivets or screws is classified as Group 2S.

Metecno® is manufactured by our sister company: Metecno in Brisbane who is the FM Approved product owner.

FM 4880 Approved Class 1 - Unlimited Height.

FM 4881 Approved Class 1 - Unlimited Height.

E2 INTERNAL MOISTURE:

E2.3.1, E2.3.2, E2.3.7 (a-c)

Flashing cover dimensions of Metecno Panel Systems as per Metalcraft Insulated Panels are in accordance with E2/AS1 NZ MRM Code of Practice (V2.2).

E3 INTERNAL MOISTURE:

E3 is the responsibility of the designer. Insulated Panels are a warm roof system where the steel skins are separated from the external and internal liners by varying thicknesses of PIR insulation. Building underlay and safety mesh is not required. If panels cantilever beyond the building line than thermal cuts are required, Metalcraft Insulated Panels should be contacted on limitations and correct detailing of thermal cuts.

F2 HAZARDOUS BUILDING MATERIALS

F2.3.1

Refer to BRANZ statement (G12.3.1). Colorbond claim coated to AS/NZS2728 - Refer to Colorbond Technical Statement.

Refer Material Safety Datasheet for Metecno.

G12 WATER SUPPLY.

G12.3.1

BRANZ statement that metal roof suitable refer: <http://www.level.org.nz/water/watersupply/mains-or-rainwater/harvesting-rainwater/>

OTHER CERTIFICATIONS

As the manufacturer of the steel from which Metecno is fabricated, Colorbond provides assurance that the steel:

- Has been manufactured in accordance with AS 1397-2001. Refer to Colorbond Technical Statement.
- Is coated in accordance with AS/NZS 2728:2013, or galvanized in accordance with AS/NZS 2312.2:2014.