Product Specification

v21 - 24/08/22

Product	MetecnoSpan® PIR Insulated Roof Panel
Product Description	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.
Supplier	MetecnoPIR®
Address	111 Ingram Rd Acacia Ridge, QLD, Australia 4110
Contact Number	07 3323 9900
Website	www.metecnopir.com.au

Product Overview

Core	PIR (Fire-retardant Polyisocyanurate)
Width (cover mm)	1000
Thickness (mm)	40, 60, 80, 100
Length	Up to 25m (check for availability)
External Material	0.42mm COLORBOND® steel
External Finishes	Trapezoidal Profile
Exterior Colour Options	Surfmist®. Other colours available subject to minimum order quantities.
Internal Material	0.5mm G300 COLORBOND® steel
Internal Finishes	Plain, Fineline, Satinline, V Rib
Interior Colour Options	Surfmist®
Pitch	2 degree minimum
Paint System	AS/NZS 2728 & AS 1397
Accreditations	CodeMark Certificate Number CM40183
Acoustic Properties	Rw 24 - 25 depending on thickness
Material Group Numbers	C1.10 Group 1 & 2[a]
Bushfire Attack Level	BAL-40 (All exposed core to be covered with flashing)
FM Approval	4471, 4880, 4881
Environmental	Zero Ozone Depleting Potential (ODP)

Technical Properties

Thermal - AS/NZS 4859.1

Declared R-Value (m^2K/W)	40, 60, 80, 100mm MetecnoSpan® delivers Declared R-value at 23°C of 1.85, 2.75, 3.65, 4.55 respectively. Contact us for other temperatures.

Acoustics - AS 1191, AS/NZS 1276 & AS/NZS ISO 717.1

R_w Value (dB)	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 R_w 24 - 25 depending on thickness. Refer to MetecnoPIR® Australia for your specific application.

Fire

Fire Hazard Properties	AS/NZS 1530.3
Ignitability Index	0
Spread of Flame Index	0
Heat Evolved Index	0
Smoke Index	1
$SMOGRA_{RC}$	< 100
Material Group Numbers AS 5637.1 / AS ISO 9705	a. MetecnoSpan® PIR steel skinned insulated building panels conform to the requirements of the BCA Specification C1.10 as either Group 1 or Group 2 depending on panel thickness and construction details. Refer Metecno® for more information.
Bushfire Attack Level AS 3959	MetecnoSpan® is suitable for use as roof covering for Class 1 and 10 buildings to be constructed in designated bushfire prone areas that have a BAL-40 or less.
FM Approval FM 4471, FM 4880, FM 4881	MetecnoSpan® Insulated Roof/Wall system is fully approved by Factory Mutual, a respected global insurer whose standards are amongst the highest in the world. MetecnoSpan® is FM Approved to FM 4471 Class 1 Panel Roofs, FM 4880 No Height Restriction & FM 4881 No Height Restriction. Refer to MetecnoPIR® Australia for advice.
Environmental	Zero Ozone Depleting Potential (ODP)

Structural - AS/NZS 1170, AS 1562.1, AS4040

Span Tables	MetecnoPIR® provides the latest Ultimate Limit State Span Tables developed specifically for Australasian conditions, in accordance with AS/NZS 1170, AS 1562.1 & AS 4040. Refer to Span Tables for detailed design guidelines and Span Tables for both Non-Cyclonic Regions A & B and Cyclonic Regions C and D. Extended Span Tables for Residential Roofing Applications are also available. Refer to Span Table Notes for design guidelines relating to fixing, and deflection limits. The panel design shall be specified by the certifying engineer as determined from the Span Tables.
Support Details	The support spacing shall be specified by the structural engineer as determined from the Span Tables.

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Safe Handling & Installation

Panel Length	Up to 25m, however site, transport and wind load restrictions can limit panel length.
Storage	Panels should always be kept dry and if placed on site, stored off the ground, slightly inclined, allowing adequate drainage and ventilation of the panel pack. No other materials to be stored / stacked on top of panel pack.
Handling	In the event of manual handling, careful consideration should be given to panel weight and appropriate PPE. Consider using mechanical aides if necessary.
Safety	The contractor is to determine and use safe working methods throughout the installation and construction period, which complies with OHS requirements. A safe work method template (although NOT project specific) is available from MetecnoPIR®.
Supporting Frame	The builder is to ensure that the substrates including slabs and kerbs; and sub frames are straight, true and fit for purpose.
Fixing	Fixings are to meet the requirements of BlueScope TB-16 Fasteners for Roofing and Walling Product Selection Guide. Fasteners must be manufactured from high grade carbon steel with a minimum class 4 anti-corrosion coating as per Australian Standards. Fasteners are to be fitted with bonded washers of either aluminium (16mm or 25mm diameter). Side laps should be stitched at 450mm centres. Additional fixings may be required for cyclonic areas. Refer to MetecnoPIR® Roofing Construction Details & Span Tables Notes for design guide relating to screw fixing.
External Side Lap	External side laps may be required to be weather sealed with a continuous bead of approved sealant. Please consult MetecnoPIR® technical team for advice during the design phase.
End Laps	End laps may be formed by either standard expansion step (requires support steel step) or sheet end lapping in one plane. End laps must be 225mm long and sealed with two unbroken beads of approved sealant.
Flashing	Flashings are manufactured from 0.55mm BlueScope COLORBOND® steel and installed to AS 1562.1 or as otherwise specified in the MetecnoPIR® Standard Construction Drawings.
Infill Strips	Infill strips manufactured from closed sell polyethylene may be installed where flashings are fixed across the sheet profile. The infill strips assist to stop wind driven rain from entering the flashing trims.
Sealant	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 to be placed between flashings/angles and panel and between panel joints as shown on the MetecnoPIR® Standard Construction Details.
Installation	Installation as per the MetecnoPIR® Standard Construction 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 and use approved SecureLap End Lap roof system. • 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 Flashing Details above. • Gaps to be filled with a suitable sealant or foam filler. • Refer to AS1562 & SA HB 39 for roofing/cladding installation & plumbing. • Refer to MetecnoPIR® Standard Construction Details & Fixing Details above 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.
Maintenance	Refer to BlueScope TB-4 Maintenance of COLORBOND® and Zincalume® Steel and the relevant MetecnoPIR® maintenance information.

Warranties & Disclaimers

Warranty	MetecnoPIR® offer a conditional warranty on MetecnoSpan® for use as architectural roofing panels of up to 30 years for material and up to 20 years for exterior paint system from install date for projects on an application basis, dependent on project location, design, installation, end use, environmental conditions and maintenance of the product. Please contact MetecnoPIR® sales team with your specific project details for more information on the available conditional warranties.
Disclaimers	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.