metecnospan

PIR

Technical Data Sheet

Version 55 Current as of: 04/08/20

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.

Panel Properties				
Panel Thickness (mm)		60	80	100
Typical Mass (kg/m ²) based on 0.42/0.5mm skins	10.7	11.6	12.7	13.2
Declared λ (W/m.K) at 23°C	0.022	0.022	0.022	0.022
Declared R-value (m ² K/W) at 15°C (NZ)	1.95	2.90	3.85	4.75
Declared R-value (m ² K/W) at 23°C (AU)	1.85	2.75	3.65	4.55
Total R-value (m ² K/W) at 15°C (Winter)	2.10	3.05	4.00	4.94
Total R-value (m ² K/W) at 30°C (Summer)		2.87	3.74	4.61
Note: Contact us for other temperatures.				

Span Table

NON-CYCLONIC REGION A&B (ROOF APPLICATIONS ONLY) PIR Core / 0.42mm Hi-tensile External / 0.5mm Internal Steel Skins. Maximum uniformly distributed ultimate wind load (kPa) for the given span:

Single Span, wind pressure acting outwards				
Span (mm)	Panel Thickness (mm)			
	40	60	80	100
1500	4.99	6.94	8.56	9.83
2700	2.15	2.84	3.57	4.31
3900	1.08	1.41	1.76	2.12
5100	0.67	0.86	1.07	1.29
6300	-	-	0.74	0.88

Multi-Span, wind pressure acting outwards				
Span (mm)	Panel Thickness (mm)			
	40	60	80	100
1500	4.01	5.57	6.87	7.31
2700	2.27	3.14	3.86	4.11
3900	1.48	2.20	2.70	2.88
5100	-	1.40	1.83	2.20
6300	-	-	1.23	1.48





Core	PIR (Fire-retardant Polyisocyanurate)
Width (cover mm)	1000
Thickness (mm)	40, 60, 80, 100
Length	Up to 11.8m (For NZ)
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
Acoustic Properties	Rw 24 - 25 depending on thickness
Material Group Numbers	C1.10 Group 2ª
Bushfire Attack Level	BAL-40 (All exposed core to be covered with flashing)
FM Approval	4471, 4880, 4881
Environmental	Zero Ozone Depleting Potential (ODP)
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

a. AS 5637.1 / AS ISO 9705 - BCA Group Number (Spec C1.10)

MetecnoSpan® PIR steel skinned insulated building panels conform to the requirements of the BCA Specification C1.10 as Group 2.

Group 2: Panel up to 200mm thick with aluminium 'wall-wall' and 'wall-ceiling' angles (1.5mm) fixed with aluminium rivets or screws is classified as Group 2. Panel up to 200mm with steel 'wall-wall' and 'wall-ceiling' angles (0.5mm) fixed with steel rivets or screws is classified as Group 2.

The technical information contained in this document cover a breadth of applications where MetecnoSpan® may be used, which may be outside the scope of our Codemark certificate. Data specific to CodeMark certification can be found on MetecnoSpan®'s CoC CM40183.

SPAN TABLE NOTES:

- Extended span tables including cyclonic regions C&D and wind pressure acting inwards are also available. Refer Metecno[®].
- 2. Fixing with min. 14g tek screws (or equivalent) at each rib are required.
- Pressures specified are for wind gusts only per AS/NZS 1170.2.
 Deflection limit of span/150 applies, and in accordance with Serviceability Limit State criteria per
- Denection limit or span to applies, and in accordance with Serviceability Limit state criteria per AS/NZS 1170.0 - TABLE C1.
 Self weight of the panel has been allowed for, plus an allowance of up to 25kg/m² for light duty
- Sen weign of the parter has been anowed on, plus an anoward of up to 25kg/m⁻ for light duty fittings (lights, etc.). No other dead loads permitted.
 Non-trafficable maintenance access (concentrated load) of 140kg (exceeding min. requirements of
- Non-trafficable maintenance access (concentrated load) of 140kg (exceeding min. requirements of AS/NZS 1170.1) on any one panel has been allowed for.
- 7. Distributed live load of 0.25kPa (as per AS/NZS 1170.1) has been allowed for. Metecno[®] tests comply with details outlined in AS 4040.0, AS 4040.1, AS 4040.2, AS 4040.3, AS 1562.1 and AS/NZS 1170.1.
- 8. Min. roof slope of 2 degree applies.
- For FM Approved applications, a) a max. span of 1830mm applies.

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

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Contact

1000mm cover width

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Refer to Metecno PIR^{\circledast} website for latest version. Consult Metecno PIR^{\circledast} for your application.

