# solarspan



**Technical Data Sheet** 

Version 54 Current as of: 31/05/23

# solarspan

EPS-FR

## **Product Description**

SolarSpan® is a long-spanning commercial and residential insulated roof panel system that combines roofing, EPS-FR insulation and a pre-painted ceiling in one durable, functional and attractive roof panel. This all-in-one roofing solution is manufactured using Australian-made COLORBOND® steel for durability and is installed in a variety of applications including educational facilities, multi-residential housing and retail facilities and is tested for use in cyclonic regions.

Panel Properties							
Panel Thickness (mm)	50	75	100	125	150	175	200
Typical Mass (kg/m <sup>2</sup> )	10.6	10.9	11.3	11.6	12.0	12.3	12.7
SL Grade Declared λ (W/m.K) at 23°C	0.042	0.042	0.042	0.042	0.042	0.042	0.042
SL Grade Declared R-value (m²K/W) at 23°C	1.20	1.80	2.40	3.00	3.60	4.25	4.85
SL Grade Total R-value (m²K/W) at 15°C (Winter)	1.40	2.03	2.65	3.27	3.90	4.52	5.15
SL Grade Total R-value (m²K/W) at 30°C (Summer)	1.38	1.98	2.57	3.17	3.76	4.35	4.95
Note: The Declared B-value is at 23°C in accordance with AS/N7S /850 1.2018 & AS/N7S							

Note: The Declared R-value is at 23°C in accordance with AS/NZS 4859.1:2018 & AS/NZS 4859.2:2018.

### Span Table

NON-CYCLONIC REGION A&B (ROOF APPLICATIONS ONLY)

SL Grade EPS-FR Core / 0.42mm Hi-tensile External / 0.6mm 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)						
		50	75	100	125	150	175	200
	1500	5.16	7.70	9.41	10.98	13.26	15.51	17.81
	2700	2.35	3.74	4.63	5.55	6.78	7.99	9.28
	3900	1.28	2.00	2.55	3.11	3.67	4.23	4.79
	5100	-	1.21	1.53	1.86	2.19	2.52	2.85
	6300	-	-	1.04	1.25	1.47	1.69	1.91
	7500	-	-	0.76	0.92	1.07	1.22	1.38
	8700	-	-	-	-	0.82	0.94	1.05

Multi-span, wind pressure acting outwards							
Span (mm)			Panel	Thickness	s (mm)		
Span (mm)	50	75	100	125	150	175	200
1500	4.15	5.90	7.61	7.74	7.74	7.74	7.75
2700	2.07	2.91	4.00	4.35	4.35	4.35	4.35
3900	1.17	1.72	2.41	2.95	3.04	3.04	3.05
5100	-	1.11	1.58	1.98	2.35	2.35	2.36
6300	-	-	1.10	1.40	1.77	1.93	1.93
7500	-	-	-	1.03	1.31	1.57	1.64
8700	-	-	-	-	-	1.20	1.43





# Colerbonð

Core	EPS-FR
	(Expanded Polystyrene with fire retardant)
Width (cover mm)	1000
Thickness (mm)	50, 75, 100, 125, 150, 175, 200
Length	Up to 24m (check for availability)
External Material	0.42mm G550 Colorbond® pre-painted steel
External Finishes	High-Rib Trapezoidal Profile
Exterior Colour Options	Classic Cream <sup>™</sup> , Surfmist <sup>®</sup> , Paperbark <sup>®</sup> , Shale Grey <sup>™</sup> , Dune <sup>®</sup> , Pale Eucalypt <sup>®</sup> ^, Manor Red <sup>®**^</sup> , Basalt <sup>®</sup> ^, Woodland Grey <sup>®^***</sup>
Internal Material	$0.6mm\ \text{G300}\ \text{Colorbond}^{\circledast}\ \text{pre-painted}\ \text{steel}$
Internal Finishes	Plain, Elegance
Interior Colour Options	Classic Cream <sup>™</sup> , Surfmist <sup>®</sup>
Pitch	2 degree minimum, refer Bondor®
Paint System	AS/NZS 2728 & AS 1397
Acoustic Properties	Rw 24 - 25 depending on thickness
Material Group Numbers	Group 1 & 2
Bushfire Attack Level	BAL-40 (All exposed core to be covered with flashing)
Fire Hazard Properties	AS/NZS 1530.3
Ignitability Index	0
Spread of Flame Index	0
Heat Evolved Index	0
Smoke Index	2-3
SMOGRA	< 100

\*\* Limited availability.

^ Darker colours warranted for use in limited regions. Check with your local SolarSpan<sup>®</sup> dealer for more information.

a. AS5637.1 / AS ISO 9705 - BCA Group Number EPS-FR steel skinned insulated building panels conform to the requirements of the BCA Specification as either Group 2 or Group 1 depending on panel thickness and construction details. Refer Bondor® for more information

The technical information contained in this document cover a breadth of applications where SolarSpan® may be used, which may be outside the scope of our Codemark certificate. Data specific to CodeMark certification can be found on SolarSpan®'s CoC CM40145.

- SPAN TABLE NOTES: 1. Extended span tables including cyclonic regions C&D, multi-span, wind pressure acting
- inwards and 0.5mm interior skin are also available. Refer Bondor<sup>®</sup> 2. Fixing with 14g tek screws (or equivalent) at each rib are required. 3. 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 AS/NZS 1170.0 TABLE C1.
  Self weight of the panel has been allowed for, plus an allowance of max 25kg/m2 for
- ben Woght outputs in parts in both allowed for place in parts another of max being minimum to light duty fittings (lights, etc.). No other dead loads permitted.
  Non-trafficable maintenance access (concentrated load) of 140kg on any span has been allowed for, in roof pans only. Avoid stepping on the ribs.
  Distributed live load of 0.25kPa (as per AS/NZS 1170.1) has been allowed for. Bondor<sup>®</sup>
- Distribute and the CLSAR's (as per AS/MCS 1170.1) has been allowed for. Bondor's tests comply with details outlined in AS 4040.0, AS 4040.1, AS 4040.2, AS 4040.3, AS 1562.1 and AS/MZS 1170.1.
  Generic engineering certification of the SolarSpan® Patio System is available for residential patios.





### Dimensions



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