

PRODUCT DESCRIPTION

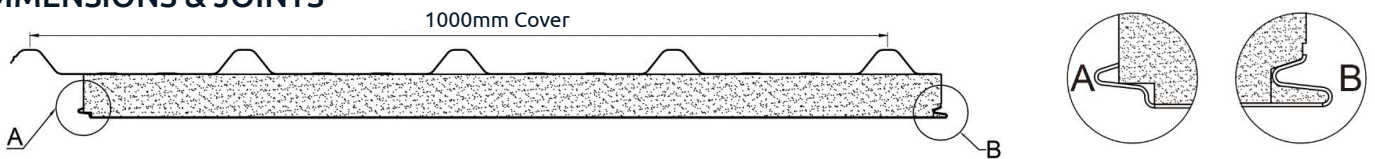
Arctic Solace Roofing Panel is a 3-in-1 insulated panel consisting of a self-extinguishing (FR) expanded polystyrene (EPS) foam and two pre-painted, roll-formed steel as top and bottom skins.

Arctic Solace Roofing Panel offers a trapezoidal profiled top skin and a smooth bottom skin with interlocking roll-formed tongue and groove edge, providing a significant advantage for fast installation, less maintenance, and effective thermal performance.

PROFILES



DIMENSIONS & JOINTS



FEATURES & BENEFITS

- Fire Retardant
- 3-in-1 panel with roofing, insulation and ceiling
- Cost-efficiency
- Good strength-to-weight Ratio
- 1000mm Wide Coverage
- Long spanning capability
- Excellent thermal insulation (High R values)
- Lifetime durability
- Recyclable and reuseable
- Proven acoustic insulation

PANEL SPECIFICATIONS

Steel Skins	Top skin: 0.42mm G550 Bottom skin: 0.6mm G300	
Core Material	AS1366.3 1992 SL Grade EPS	
Adhesive	Two parts heat polymerising adhesive	
Max. Skin Temperature	75°C	
Core Density	FR-EPS: 14kg/m ³	
0.6mm skin Panel Weight (kg/m ²)	50mm	10.6
	75mm	11.0
	100mm	11.2
	125mm	11.8
	150mm	12.3
	175mm	12.8
	200mm	13.4
Thermal Conductivity	0.037W/mK @22.5°C (AS 1366.2)	
R Value (m ² K/W) @22.5°C	50mm	1.42
	75mm	2.03
	100mm	2.64
	125mm	3.25
	150mm	3.86
	175mm	4.47
	200mm	5.08
	250mm	6.30
Sheet Coverage (mm)	1000	
Length (mm)	Cut to length	
Length Tolerance	± 5mm	
Thickness (mm)	50, 75, 100, 125, 150, 175, 200, 225, 250	
Minimum Roof Pitch	2°	

APPLICATIONS

- Commercial buildings
- Residential buildings
- Potable Outdoor buildings
- Carports
- Patios
- Pergolas

FIRE TEST CERTIFICATE

Arctic FR-EPS Panels satisfied the criteria given by NCC and were classified as Group 1 Materials in AS 5637.1 as per BRANZ Certificate No 374 ISSUE 2 and Fire Assessment Report 2489 ISSUE 3.

SPAN TABLE

ALLOWABLE SINGLE SPANS (MM)					
Wind Category	Panel Thickness	3 Sides Open	2 Sides Open	1 Side Open	Fully Enclosed
N2(W33)	50	5300	5000	4500	4300
	75	6400	5450	4900	4600
	100	7200	6150	5600	5400
N3(W41)	50	4800	3800	3300	3000
	75	5450	4300	3850	3700
	100	6150	4950	4500	4300
N4(W50)	50	4000	3300	3000	3000
	75	4550	3600	3300	3300
	100	5250	4050	3800	3800

Note: Allowable maximum spans are selected based on theoretical calculation and experiment testings, according to AS1170.2-2011, non-cyclone factors.

SERVICEABILITY LIMIT STATE WIND PRESSURE (KPA)										
Thickness (mm)	Span (m)									
	2.0	2.4	3.0	3.6	4.0	5.0	6.0	7.0	8.0	9.0
50	1.8	1.3	0.95	0.67	0.52	0.37	0.26	-	-	-
75	2.9	2.4	1.80	1.39	1.03	0.74	0.49	0.31	-	-
100	6.1	5.0	3.61	2.47	2.16	1.43	0.93	0.50	0.36	-
150	7.3	6.1	4.74	3.61	2.88	2.02	1.24	0.95	0.69	0.53
200	9.1	7.7	5.97	4.64	3.71	2.86	1.75	1.38	1.03	0.77

Note: A deflection limit of span/150 has been used for deflection calculation, according to AS1170.0-Table C1 Serviceability Limit State Criteria, single span.