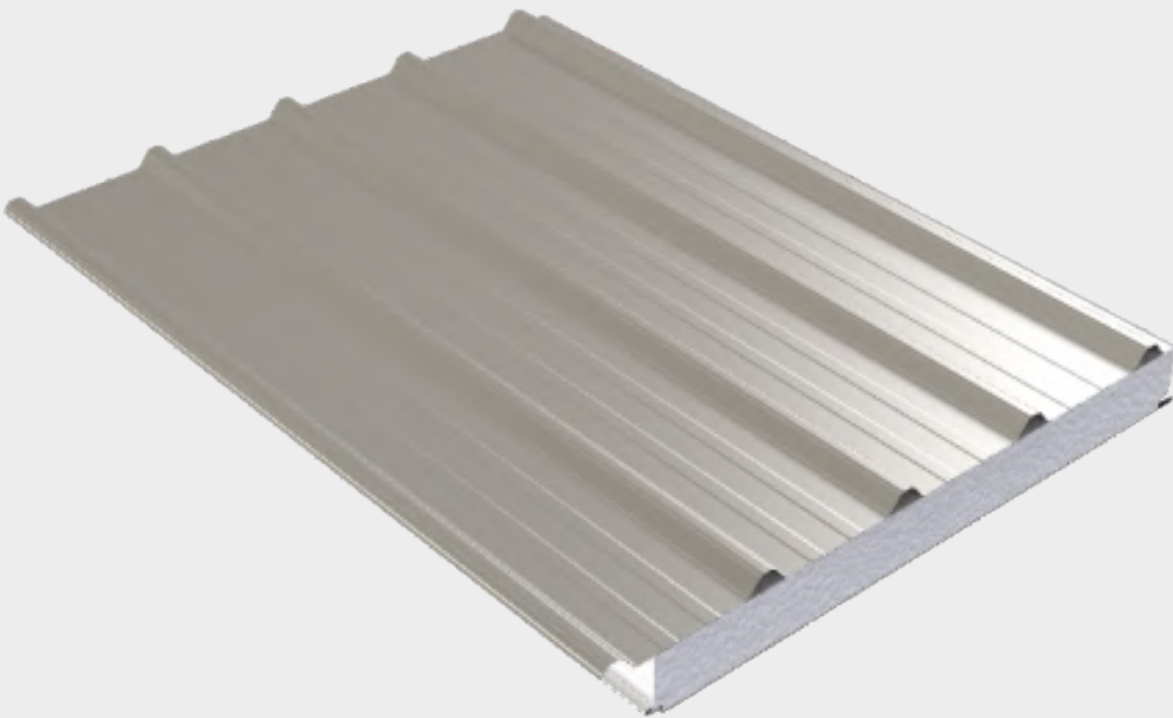




ARCTIC
INSULATED PANELS

Manufacturer & Installer
of Insulated Panel Systems

SOLACE INSULATED PANELS PRODUCT DATA SHEET



WHO WE ARE

At Arctic Insulated Panels, we design, manufacture, supply, and install high-performance insulated panel systems and controlled environments. From cold storage and food processing to clean rooms and agricultural sheds, we build spaces that work.

Founded in 2015 by Gary Burns, Arctic has grown into a nationally active business with branches across the NT, SA, and QLD. We're known for our technical precision, local know-how, and a people-first approach to every job.

While our core branches are in NT, SA and QLD, our reach extends nationwide. We service projects right across Australia, from metro hubs to remote regions, ensuring consistent quality wherever our clients need us.

VISION

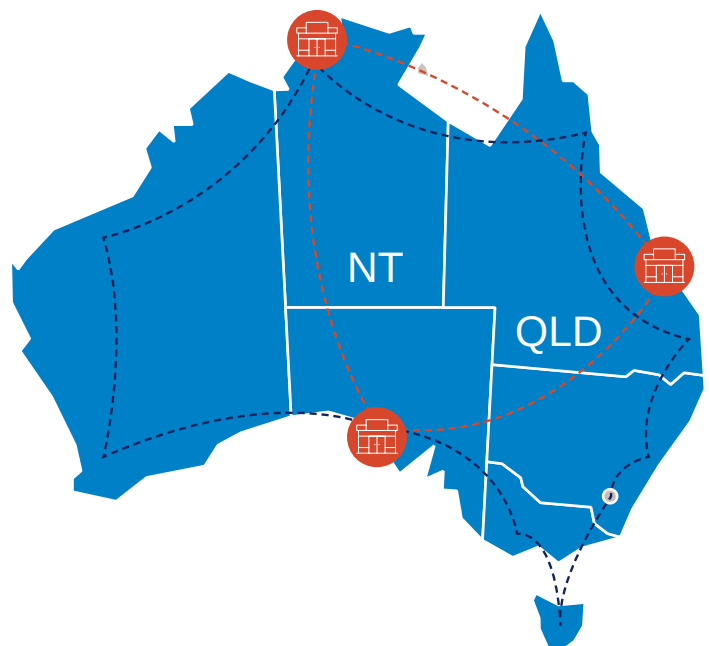


To be Australia's most trusted partner in insulated panel construction, delivering safe, high-performance environments that stand the test of time.

MISSION



We design, manufacture, and install quality insulated panel systems for cold storage, controlled environments, and industrial facilities across Australia. With in-house dependable solutions from start to finish.



RAW MATERIALS

At Arctic, quality begins long before a panel reaches our production line. We carefully select every raw material, from premium steel skins to high-performance insulated foam and specialised panel adhesives.

Each component is sourced from trusted suppliers with proven consistency and transparent warranties. This ensures our panels deliver reliable performance, durability, and peace of mind. When it comes to materials, we don't compromise.

CODEMARK

We're proud to be certified under the CodeMark Certification Scheme, a nationally recognised accreditation administered by the Australian Building Codes Board (ABCB). This means our insulated panel systems have undergone rigorous third-party testing and review and meet the compliance requirements of the National Construction Code (NCC) for their approved use. You can trust our products for innovative, high-performance building applications, especially in tough Australian environments.

IPCA

Our insulated panel systems are certified under the IPCA Panel Certification Scheme, the industry-wide third-party accreditation administered by the Insulated Panel Council Australasia. This means our products and installations meet rigorous standards for design, manufacture, installation and maintenance of insulated sandwich panel systems, ensuring safety, performance and compliance in line with industry best practice. You can be confident our panel solutions are backed by recognised IPCA certification.

CAL

We are proud to hold accreditation from CAL, a trusted, pre-qualification scheme in the Northern Territory established to ensure high standards across the building and construction industry. This accreditation demonstrates that our company has been independently assessed for capability, compliance and reliability, giving you confidence that we meet the rigorous installation expectations required for significant projects in the NT.



PRODUCT DESCRIPTION

Arctic Solace FR-EPS Panels are 3-in-1 insulated sandwich panels manufactured with a self-extinguishing, fire-retardant (FR) expanded polystyrene (EPS) core bonded between two pre-painted, roll-formed steel facings.

The Solace profile features a trapezoidal profiled external skin for enhanced structural performance and water shedding, combined with a smooth internal liner for a clean architectural finish. Precision roll-formed tongue-and-groove interlocking joints ensure accurate alignment, rapid installation, improved air tightness, and reliable thermal efficiency.

The panels are engineered to meet the fire performance requirements of the Building Code of Australia (BCA), achieving Group 1 classification in accordance with relevant test standards (subject to full system configuration).



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)
- Long-term durability
- Recyclable and reusable
- Proven acoustic insulation

APPLICATION

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

PANEL PHYSICAL PROPERTIES

Steel Skins	Top skin:0.42 mm G550 Bottom skin:0.6 mm G300	
Core Material	FR-EPS SL Grade (Fire Retardant)	
Adhesive	Two parts heat polymerising adhesive	
Max. Skin Temperature	75°C	
Core & Density	FR-EPS: 13.5 kg/m3	
0.6 mm skin Panel Weight (kg/m²)	50 mm	10.6
	75 mm	11.0
	100 mm	11.4
	125 mm	11.8
	150 mm	12.3
	175 mm	12.8
	200 mm	13.2
Steel Coverage (mm)	1000	
Length (mm)	Cut to length	
Length Tolerance (mm)	+/- 5	
Thickness (mm)	50, 75, 100, 125, 150, 175, 200, 225, 250	
Minimum Roof Pitch	2°	

MANUFACTURING TOLERANCES

Criteria	Manufactured	Tolerance
Length	Standard length: 2,000mm to 13,500mm; Special order: 13,500mm to 16,000mm;	+/- 5 mm
Width	Standard as 1,000mm	+/- 1 mm
Thickness	50mm to 250mm in multiples of 25mm	+/- 1 mm

COLOUR OPTIONS

Solace Trimdek

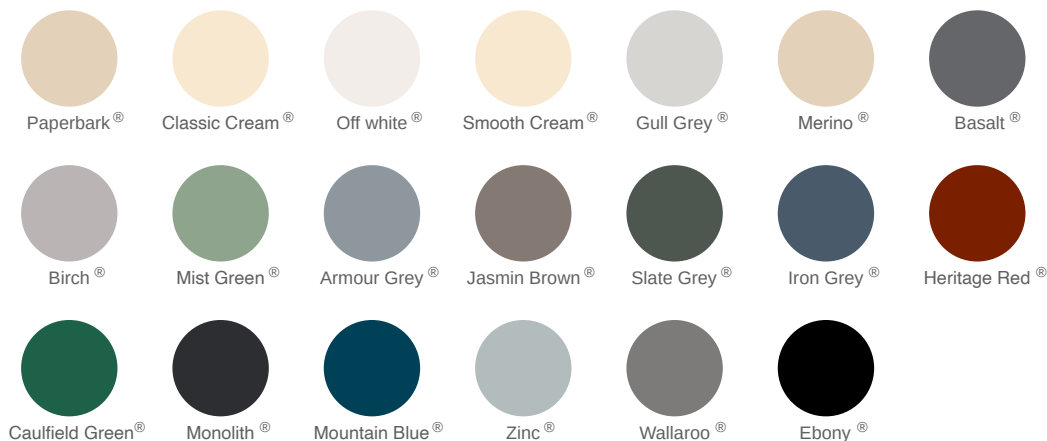
Standard stock colours



Surfmist®

Dune®

Colour with MOQ requirements



Paperbark®

Classic Cream®

Off white®

Smooth Cream®

Gull Grey®

Merino®

Basalt®

Birch®

Mist Green®

Armour Grey®

Jasmin Brown®

Slate Grey®

Iron Grey®

Heritage Red®

Caulfield Green®

Monolith®

Mountain Blue®

Zinc®

Wallaroo®

Ebony®

Solace Underneath

Standard stock colours



Surfmist®

Colour with MOQ requirements



Smooth Cream®

Ashwood®

Maple®

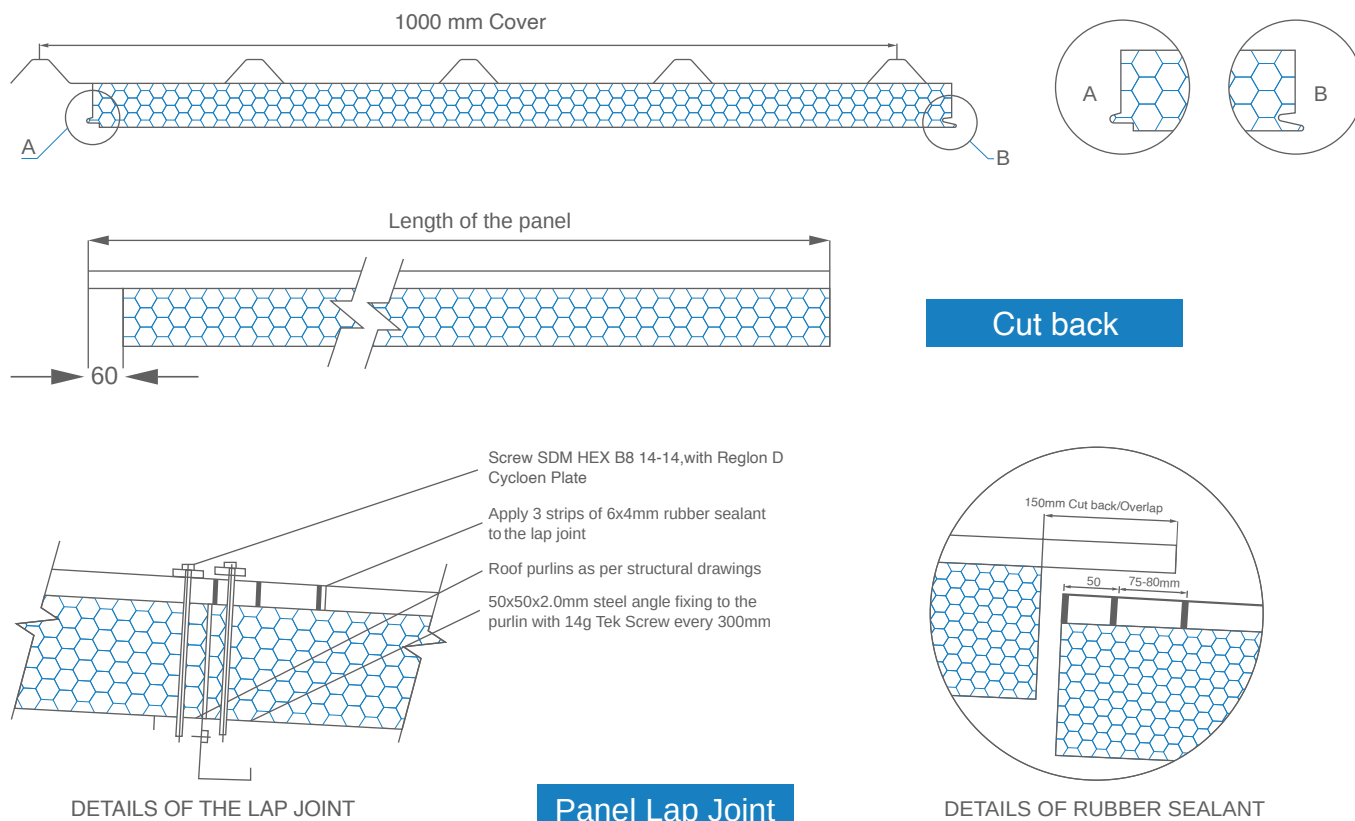
PACKAGING

Our panels are securely stacked horizontally, shrink-wrapped, and fitted with foam feet for protection. We offer local, Road Freight, and Sea Freight packaging options, each providing increased padding to suit transport requirements. The number of panels per pack varies depending on panel length, weight, and thickness, with a typical pack measuring the panel length by 1200 mm high and 1100 mm wide.

ENVIRONMENTAL

Arctic Insulated Panels are an environmentally friendly building solution designed to reduce energy use and carbon emissions. Arctic does not use any ozone depleting substances in the manufacturing process. Their superior thermal performance minimises heating and cooling needs, while prefabricated manufacturing reduces waste and speeds up installation. Made using recyclable materials, insulated panels offer a long-lasting, sustainable solution that supports energy-efficient and low-impact construction.

PANEL PROFILE & JOINTS



THERMAL PERFORMANCE

Arctic Panel	Declared Total R & Values (m ² .K/W)		
	R T15°C	R T23°C	R T30°C
50	1.40	1.40	1.40
75	2.05	2.00	2.00
100	2.65	2.60	2.55
125	3.25	3.20	3.15
150	3.85	3.80	3.75
200	5.05	4.95	4.85
250	6.20	6.05	5.90

The R-values shown represent the Total R-Value of the building element as required by the Energy Provisions of the National Construction Code, calculated in accordance with AS/NZS 4859.2:2018. Arctic panels are manufactured, tested, and packaged in conformance with AS/NZS 4859.1:2018.

FIRE PERFORMANCE

Group Number Classifications

Nominal Panel thickness 250 mm or less: Group 1 Smoke Growth Rate Index $SMOGR_{RC} < 100$

- Requirements: Panel to panel junctions require steel angles fixed to the steel skins at not more than 300 mm centres, with steel rivets. Ceiling panel to panels joins require a steel (stitch) rivet connecting the metal skins at not more than 1200 mm centres.

Source: BRANZ Certificate Number: 374 Issue 2 dated 23/02/2021

Nominal Panel thickness 250 mm or less: Group 2 Smoke Growth Rate Index $SMOGR_{RC} < 100$

- Requirements: Panel to panel junctions require steel angles fixed to the steel skins at not more than 300 mm centres, with steel rivets.

Source: BRANZ Certificate Number: 372 Issue 2 dated 23/02/2021

Nominal Panel thickness 150 mm or less: Group 2 Smoke Growth Rate Index $SMOGR_{RC} < 100$

- Requirements: Panel to panel corner junctions require aluminium angles fixed to the steel skins at not more than 300 mm centres, with aluminium rivets.

Source: BRANZ Certificate Number: 373 Issue 2 dated 23/02/2021

DEBRIS IMPACT TESTING

A programme of simulated wind driven debris impact testing was performed on Arctic Solace panels, using the debris impact test loads specified in Clause 2.5.8 of AS/NZS 1170.2:2021, where the panels achieved results of PASS.

HIGH-LOW SPAN TABLE

		Ultimate Strength Limit State Design Wind Capacity (kPa) of Solace Insulated Panel Span Tables (Region C-Cyclonic, 0.6 mm Steel Skins)					
Thickness	Span	2.0	2.4	3.0	3.6	4.0	5.0
50	Single Span						
	Double span	3.0	2.9	2.2	1.8	1.3	-
75	Single Span	2.8	2.5	2.2	1.6	1.1	-
	Double span	5.0	4.8	3.4	3.1	2.0	-
100	Single Span	3.8	3.3	2.6	1.9	1.6	1.0
	Double span	5.7	4.7	3.6	3.0		-
150	Single Span	5.0	4.2	3.0	2.6		1.3
	Double span	8.0	5.9	4.7			-
200	Single Span	7.4	6.1	4.1			2.0
	Double span						2.2

1. Pressures specified are for wind gusts only per AS1170.
2. Self weight of the panel has been allowed for, plus an allowance of up to 25 kg/m for light duty fittings (lights, etc.). No other dead loads permitted.
3. Distributed live load of 0.25 kPa has been allowed for (as per AS/NZS 1170.1:2002).
4. Deflection limit of span/150 applies, and in accordance with Serviceability Limit State criteria per AS1170.0 - TABLE C1.
5. Please contact Arctic Insulated Panels for detailed span table and spanning performance.

CONTACT US

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