

DeltaCool-EPS-FR is an Insulated Wall Panel System, comprising of two pre-painted, roll-formed steel skins, bonded to a fire retardant grade expanded polystyrene insulating core.

Both skins have a roll-formed tongue and groove edge. Skins are coated with an anti-bacterial paint that inhibits the growth of bacteria.

CodeMark

CodeMark Australia Certificate CM40365 certifies that DeltaCool-EPS-FR complies with the stated performance provisions of the NCC2022. Please refer to the certificate as displayed on our web page for the exact details of the compliance.



Profiles Available

- Smooth
- Ribbed
- MicroRibbed
- 5V
- SingleV

Recommendations

- Cold Stores
- Commercial Kitchens
- Food Processing Areas
- Portable Buildings
- Home Extensions
- Spray Booths
- Wineries
- Commercial Buildings
- Residential Buildings
- Growing Rooms

Bushfire Attack Level - BAL 29

DeltaCool-EPS-FR Wall up to 150mm thick has a BAL 29 rating as per the BRANZ Bushfire Report FC10893-001, 24 October 2018

Fire Test Certificate - AS ISO 9705

Group 1 Classification in accordance with NCC Volume One Specification BCA2022 C2D11 & Specification 7, Fire Hazard Properties, Clause S7C4 determined in accordance with AS 5637.1:2015 as per BRANZ test report 374 Issue 2 on 23rd February 2021

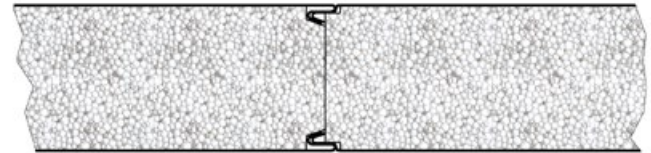
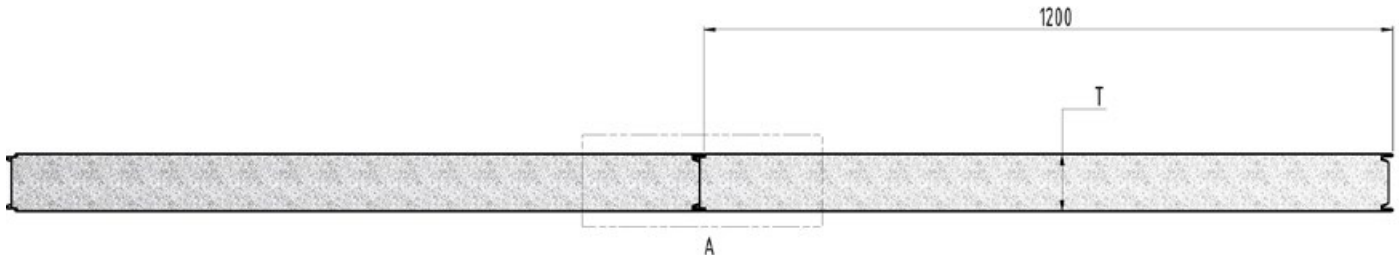
Early Fire Hazard Properties AS 1530.3:1999

AWTA Test Report 18-006076 14-11-2018

Index	Test Range	External Top Skin
Ignitability	0-20	0
Spread of Flame	0-10	0
Heat Evolved	0-10	0
Smoke Developed	0-10	2

Due to the nature of the manufacturing process the actual dimensions may vary. Please refer to the stated acceptable tolerances allowances.

Steel Skin Details ColorBond®	Top Skin	0.40mm / 0.60mm / G300 Z275	
	Bottom Skin	0.40mm / 0.60mm / G300 Z275	
Max. Skin Temperature	78°C Dry Heat		
Core Material Details	Expanded Polystyrene - Fire Retardant Grade		
Thermal Conductivity AS 1366.2/ASTM C 518	Average result of 0.0442 W/mK @ 23°C		
Adhesive	Thermosetting two-part adhesive		
Core Density	13.5kg/m ³		
0.6mm Skin Weight (kg/m²)	50mm Panel	10.58	
	75mm Panel	10.94	
	100mm Panel	11.17	
	150mm Panel	12.23	
	200mm Panel	13.31	
R Value (m².K/W) AS/NZS 4859 Parts 1 & 2:2018	Thickness	Winter (15°C)	Summer (23°C)
	50mm Panel	1.36	1.33
	75mm Panel	1.94	1.89
	100mm Panel	2.51	2.44
	150mm Panel	3.60	3.51
200mm Panel	4.65	4.53	
Certificate of Conformity	CodeMark Australia Certificate - CM40365		
Length Tolerance (mm)	5mm+/-		
Sheet Coverage (mm)	1200mm +/-5mm		
Length (mm)	Cut to Length Min of 1800mm		
Thickness (mm)	50,75,100,150, 200		
Flatness Standards	0.40mm	Surface deformations can be apparent to the naked eye when observed in certain lighting conditions	
	0.60mm		



Detail A

Shear Load Transference - Shear load is transferred by rivets into the floor / ground surface or the perpendicular walls, ceiling & roof at a rate of 1.21 kN per 4.0 mm diameter rivet.

Fixing rivets at 200mm centres complies with the 20-minute flame barrier requirements and delivers 14.5 kN of shear capacity transfer per panel (6 on each side) horizontally, and 12.1 kN per metre in vertical joints. Limited by the ability of the panel to transfer the shear.

0.60mm DeltaCool-EPS-FR Bracing Capacity

Panel Height (m)	2.4	1.2*	4.8*
Kn/m	5.0	10.0	2.5
Bracing Units (BU)	100	200	50

* Figures for 1.2m & 4.8m high panels are extrapolated. It is acceptable to extrapolate Bracing Capacity heights between 1.2m & 4.8m. For heights outside of this dimension range, Diaphragm Analysis is required to establish Bracing Capacity.

Delta Cool EPS Panel Span Tables (mm)

		Freestanding	1 Wall	2 Wall	3 Wall	Enclosed
N1	50mm	5300	5300	5300	4200	4700
	75mm	7100	7100	6500	4500	5300
	100mm	7800	7500	7000	4850	5500
	150mm	9600	9600	7600	5600	7500
	200mm	10500	10500	8300	6600	8200
N2	50mm	5000	5000	4300	3450	4200
	75mm	6500	6500	5300	3850	4700
	100mm	7000	6700	5500	3950	4850
	150mm	8600	8600	6300	4500	6100
	200mm	9800	9800	7200	4800	7100
N3	50mm	4400	4400	3800	2750	3300
	75mm	5400	5200	4200	2900	3600
	100mm	5600	5400	4400	3050	3900
	150mm	6900	6500	5000	3300	4900
	200mm	7800	7800	5400	3700	5300
N4	50mm	3600	3600	2500	2050	2400
	75mm	4400	3900	2650	2150	2600
	100mm	4600	4100	2800	2250	2700
	150mm	5600	4800	3400	2450	3300
	200mm	6800	5400	3600	2650	3500

The above table lists ultimate wind load pressures for strength design and the pressure corresponding to a Span/150 single span deflection for 0.6mm G300 steel skins bonded to a EPS-FR Polystyrene core and in accordance with Serviceability Limit State criteria as per AS1170.0 - Table C1. The designer shall determine if Span/150 deflection ratio is appropriate for intended use. Loads for a more stringent deflection ratio can be determined by linearly proportioning the loads provided. Differential thermal effects are not incorporated in the loads provided.