

DeltaSecretFix-TPC is an Insulated Wall Panel System, comprising of two pre-painted, roll-formed steel skins, bonded to a Thermosetting Phenolic Composite core.

The top and bottom skins are offset by 25mm, this allows for the placement of the Interface locking bracket which has the dual purpose of locking the top and bottom skins together while also offering a method of secretly fixing the panel. The result is a clean exterior finish with no visible fasteners.

Profiles Available

Smooth - As the top and bottom skins are offset it is recommended that the steel skins are left as smooth. This will ensure a perfect alignment of all skins and joins.

Recommendations

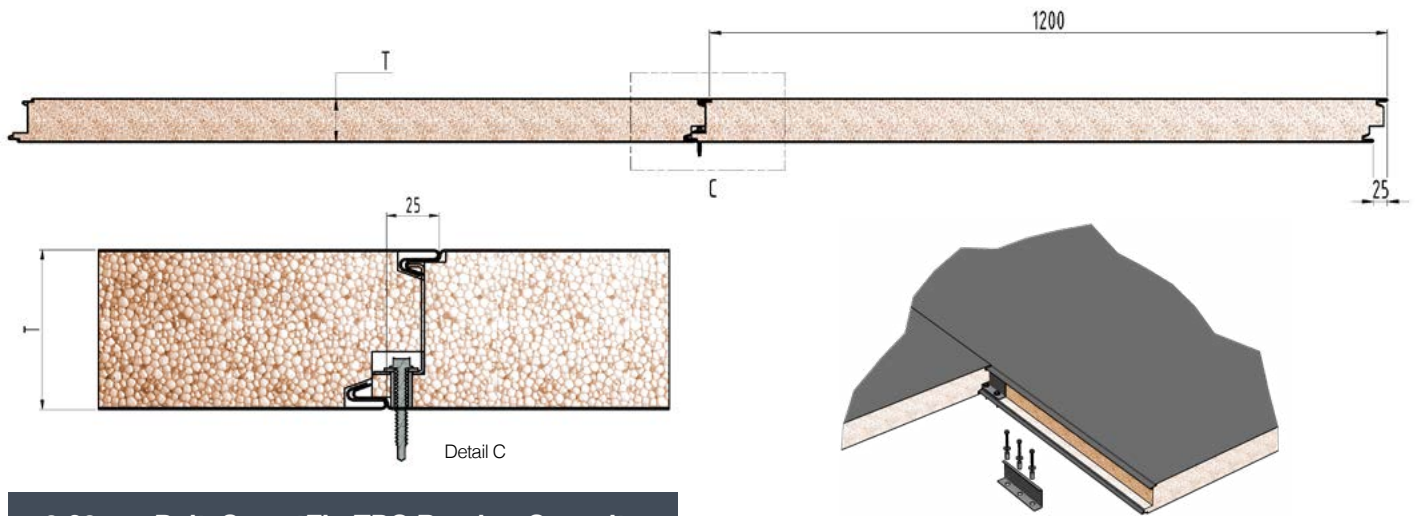
- Architectural Structures
- Curtain Walling
- Clean Rooms
- Feature Walls
- Commercial Buildings
- Residential Buildings

Early Fire Hazard Properties AS 1530.3:1999

AWTA Test Report 23-000591 20-02-2023

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	1

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	Thermosetting Phenolic Composite		
Thermal Conductivity AS 1366.2/ASTM C 518	Average 0.039 W/mK @23°C		
Adhesive	Thermosetting two-part adhesive		
Core Density	36kgs/m3 +/- 4 kgs		
Panel Weight (kgs/m²) based on 0.6mm steel skins	50mm Panel	11.70	
	75mm Panel	12.06	
	100mm Panel	12.43	
	125mm Panel	12.08	
	150mm Panel	13.15	
External Wall R Value (m².K/W) AS/NZS 4859 Parts 1 & 2:2018	Thickness	Winter (15°C)	Summer (23°C)
	50mm Panel	1.46	1.41
	75mm Panel	2.11	2.01
	100mm Panel	2.76	2.61
	125mm Panel	3.41	3.26
150mm Panel	4.06	3.86	
Sheet Coverage	1200mm		
Length (mm)	Cut to Length Min of 1800mm		
Length Tolerance (mm)	5mm+/-		
Thickness (mm)	50, 75, 100, 125, 150		
Flatness Standards	0.40mm 0.60mm	Surface deformations can be apparent to the naked eye when observed in certain lighting conditions	
Patent Application No.	AU2023266264		



0.60mm DeltaSecretFix-TPC 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.

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.

0.6mm DeltaSecretFix-TPC Ultimate Load Capacity / Deflection Load Table (kPa)

		Panel Thickness (mm)				
		50	75	100	125	150
Span (m)	1.0					
	1.5					
	2.0					
	2.5	2.75 / 1.32	4.14 / 2.44	5.53 / 1.43		
	3.0	1.90 / 0.97	2.87 / 1.86	3.83 / 2.12	4.40 / 3.49	5.60 / 4.33
	3.5	1.39 / 0.74	2.10 / 1.45	2.81 / 2.12	3.42 / 2.81	4.11 / 3.51
	4.0	1.06 / 0.56	1.60 / 1.15	2.14 / 1.71	2.61 / 2.29	3.14 / 2.89
	4.5	0.83 / 0.61	1.26 / 0.92	1.69 / 1.39	2.06 / 1.89	2.47 / 2.41
	5.0	0.67 / 0.35	1.01 / 0.74	1.36 / 1.14	1.66 / 1.57	2.00 / 2.01
	5.5	0.54 / 0.27	0.83 / 0.61	1.12 / 0.95	1.37 / 1.32	1.65 / 1.66
	6.0	0.45 / 0.22	0.69 / 0.50	0.94 / 0.80	1.14 / 1.12	1.38 / 1.39
	6.5		0.59 / 0.42	0.79 / 0.67	0.97 / 0.95	1.17 / 1.18
	7.0		0.50 / 0.35	0.68 / 0.57	0.83 / 0.81	1.00 / 1.01
	7.5			0.59 / 0.30	0.72 / 0.70	0.87 / 0.88
	8.0			0.51 / 0.41	0.63 / 0.61	0.76 / 0.77
8.5				0.55 / 0.53	0.67 / 0.68	

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 Thermosetting Phenolic Composite (TPC) 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.

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