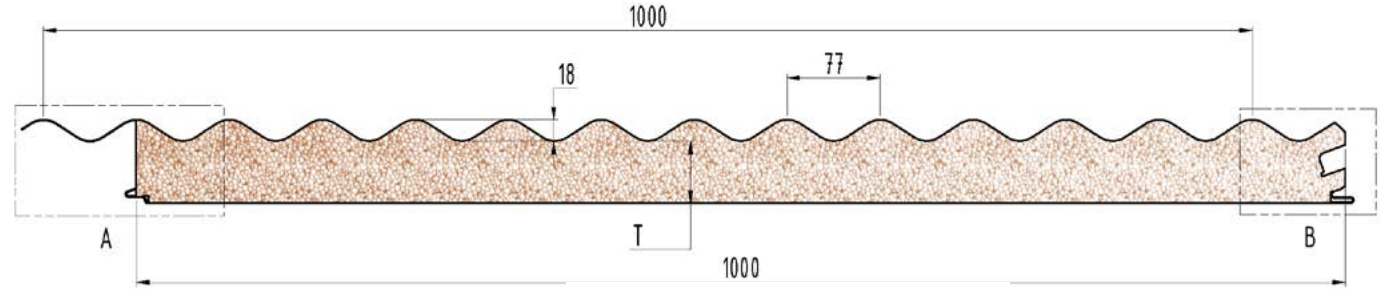
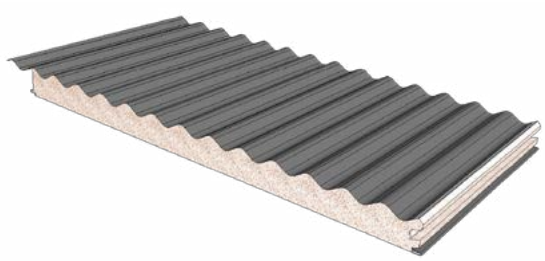
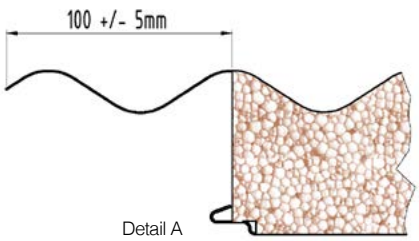
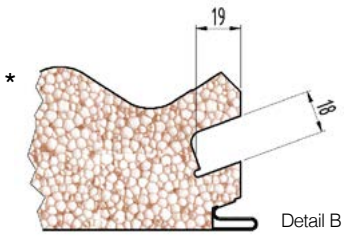
DeltaOrb-TPC
SPECIFICATIONS







Detail A



Detail B

* Conduit receiver track optional addition

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

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

The top profile offers striking looks with all of the benefits of modern Insulated Panel technologies.

The bottom skin has a roll-formed tongue and groove edge.

Recommendations

- Patios
- Pergolas
- Carports
- Portable Buildings
- Home Extensions
- Commercial Buildings
- Residential Buildings
- Wineries
- Spray Booths

Profiles Available (Underside Skin)

- Smooth & Elegance

Bushfire Attack Level - BAL 29

DeltaOrb-TPC has achieved a Bushfire Attack Level (BAL) of AA29 as per the CSIRO Bushfire performance assessment report FCO-3534, of Delta Panel roof systems in accordance with AS1530.8.1:2018

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 FI6323-01-2 issued 23rd February 2021

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	Top Skin	0.42mm / G550 AZ150	
	Bottom Skin	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 +/- 4kgs		
Panel Weight (kgs/m²) based on 0.6mm steel skins	50mm Panel	11.70	
	75mm Panel	12.06	
	100mm Panel	12.43	
	125mm Panel	12.79	
	150mm Panel	13.15	
	175mm Panel	13.51	
	200mm Panel	13.86	
External Roof R Value (m².K/W) AS/NZS 4859 Parts 1 & 2:2018	Thickness	Winter (15°C)	Summer (23°C)
	50mm Panel	1.45	1.45
	75mm Panel	2.10	2.05
	100mm Panel	2.75	2.65
	125mm Panel	3.40	3.30
	150mm Panel	4.05	3.90
	175mm Panel	4.75	4.60
	200mm Panel	5.40	5.20
Factory Mutual	FM Approval Class 4880, 4881, 4882 & 4471		
Length Tolerance (mm)	5mm +/-		
Sheet Coverage (mm)	1000mm, +/-5mm		
Length (mm)	Cut to Length Min of 1800mm		
Thickness (mm)	50, 75, 100, 125, 150, 175, 200		
Minimum Roof Pitch	Building Classes 1-9 - 5°		
	Building Class 10 - 3°		
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		

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Version Date: 2025-11-28

DeltaOrb-TPC
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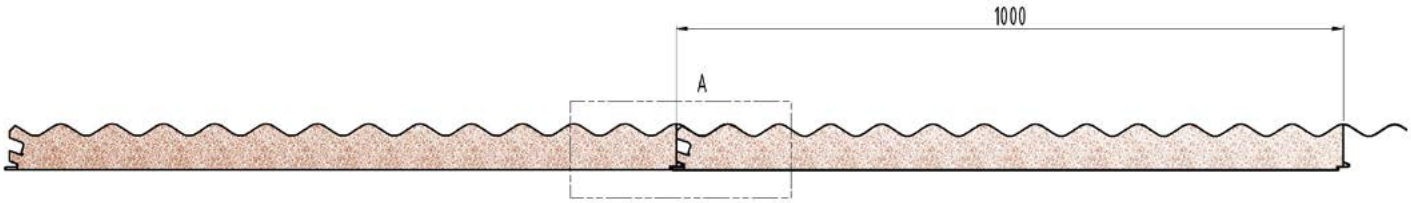
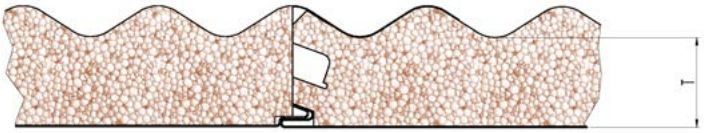


Single Spans (mm)

Wind Category	Panel Thickness	3 Sides Open	2 Sides Open	1 Side Open	Fully Enclosed
N2 (W33)	75	7380	5630	4190	5250
	100	7500	68860	4900	6330
	150	9000	7780	5740	7230
N3 (W41)	75	5270	4070	3060	3810
	100	6360	4740	3430	4390
	150	7270	5570	4150	5190
N4 (W50)	75	3960	3080	2330	2880
	100	4590	3450	2510	3200
	150	5410	4170	3130	3900

DeltaOrb-TPC Acoustic Values

		50mm	125mm
Frequency	100	15.41	15.00
	160	16.40	15.09
	200	18.81	17.70
	250	19.70	18.51
	315	21.39	19.40
	400	22.31	19.69
	630	23.40	19.10
	800	23.69	17.31
	1000	25.61	18.29
	1250	21.01	30.10
	1600	20.00	36.19
	2000	34.79	37.30
	2500	41.70	37.09
	3150	44.10	35.69
	5000	44.61	39.90
	STC	24.00	23.00
	RW	25.00	24.00



Detail A

Acoustic Performance

Acoustic testing has been performed on TPC panels in compliance with the requirements of AS 1191-2002 “Acoustics - Method for Laboratory Measurement of Airborne Sound Insulation of Building Elements”.

The procedures specified by AS/NZS ISO 717.1:2024 were used to calculate the Sound Transmission Class (STC) and the Weighted Sound Reduction Index Rw = 25 dB.

Trafficable Status

DeltaOrb-TPC is classified as trafficable when used for maintenance purposes. The following recommendations should be observed at all times.

- Wear flat, rubber soled shoes
- Walk over the roof supporting beams
- Spread your weight over as many roof crests as possible
- Crawl boards should be used when accessing areas not supported by a structure

DeltaOrb-TPC Fixing Details

Crest fixing only. One fixing every second crest

Panel Thickness (mm)	Fixing into Steel	Fixing into Timber
50	Tek 14 x 115 Hex Head Screw	T17 14 x 125 Hex Head Screw
75	Tek 14 x 135 Hex Head Screw	T17 14 x 150 Hex Head Screw
100	Tek 14 x 150 Hex Head Screw	T17 14 x 175 Hex Head Screw
125	Tek 14 x 175 Hex Head Screw	T17 14 x 200 Hex Head Screw
150	Tek 14 x 200 Hex Head Screw	T17 14 x 230 Hex Head Screw
175	Tek 14 x 230 Hex Head Screw	T17 14 x 265 Hex Head Screw
200	Tek 14 x 260 Hex Head Screw	T17 14 x 300 Hex Head Screw

Use Cyclone Plate and Neo Washer on each fixing.
Upon Installation the overlap needs to be stitch screwed or riveted every 300mm.

As at the stated Version Date all of the information contained in this document is correct. Please check on our WebPage to ensure that you’re referencing the current version.

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