

CodeMark



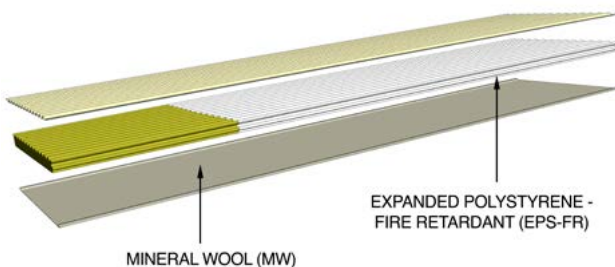
DeltaOrb-DC is a CodeMark Approved Patented Insulated Roofing System for boundary applications that complies with the non-combustibility requirements of Part H3 of the National Construction Code NCC2022 Volume Two.

It comprises two pre-painted, roll-formed steel skins, encapsulating a combination of Expanded Polystyrene Fire Retardant Grade (EPS-FR) Insulation with Mineral Wool (MW) Insulation. The Mineral Wool Core is positioned at the end of the panel when constructing a Class 10 structure within 900mm of the boundary line.

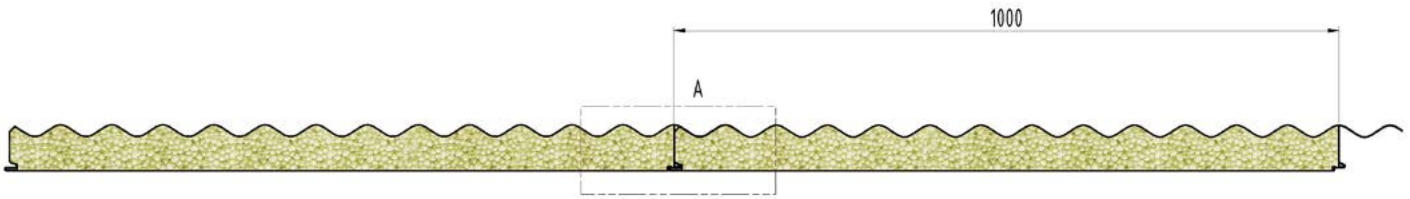
Early Fire Hazard Properties AS 1530.3:1999

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



Steel Skin Details ColorBond®	Top Skin	0.42mm / G550 AZ150	
	Bottom Skin	0.55mm / G300 Z275	
Max. Skin Temperature	78°C Dry Heat		
Core Material Details	Minimum of 900mm Mineral Wool with the balance in EPS-FR		
Thermal Conductivity AS 1366.2/ASTM C 518	Minimum 0.0042 W/mK @ 23.0°C		
Core Density	Average density for a 6.0 metre panel is 30.8kg/m³		
Certification of Conformity	* CodeMark Australia Certificate CM40330		
Panel Weight (kgs/m²) based on average weight of a 6 meter panel with 0.6mm steel skins	50mm Panel	13.1	
	75mm Panel	13.9	
	100mm Panel	14.7	
	125mm Panel	16.7	
	150mm Panel	18.7	
External Roof Minimum R value (m².K/W) As/NZS 4859 Parts 1 & 2:2018	Thickness	Winter (15°C)	Summer (23°C)
	50mm Panel	1.38	1.36
	75mm Panel	1.90	1.85
	100mm Panel	2.52	2.43
	125mm Panel	3.13	3.02
150mm Panel	3.69	3.56	
Sheet Coverage	1000mm		
Length (mm)	Cut to Length Min of 1800mm		
Length Tolerance (mm)	5mm+/-		
Thickness (mm)	50, 75, 100, 125, 150		
Minimum Roof Pitch	3° for Class 10 Buildings		
Flatness Standards	0.40mm	Surface deformations can be apparent to the naked eye when observed in certain lighting conditions	
	0.60mm		
Innovation Patent No.	2021104435		



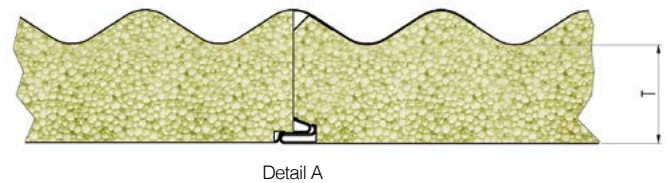
Handling and Installation

DeltaOrb-DC utilises a combination of Expanded Polystyrene (EPS-FR) and Mineral Wool (MW) insulated core material. The fibrous structure of Mineral Wool makes it easy to fracture the woven fibres if handled and installed incorrectly. Please ensure that correct lifting equipment is used when the panels are transported and lifted into position. Refer to the Handling & Installation Manual - Roof Systems for the correct Crane & Sling Procedures.

When installing **DeltaOrb-DC** panels only step onto the section of the panels that are supported by the underneath roof structure. Do not step on unsupported spans. The whole of the Mineral Wool section of the panel can not overhang the underneath roof structure, it must be fixed and fully supported. Once installed it is classified as trafficable when used for maintenance purposes only. The following recommendations should be observed at all times.

Recommendations

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



Acoustic Performance

DeltaOrb-DC Acoustic Testing has been performed 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 $R_w = 25$ dB.

Colour Range - Warranty

Expanded Polystyrene Fire-Retardant Grade (EPS-FR) is a thermoplastic that when exposed to high levels of sustained heat is subject to changes in its structural properties. On extremely hot days with no cooling wind, dark colours have been recorded as reaching extreme temperatures. The manufacturer of the steel recommends the following colours, subject to conditions of use, will maintain a temperature under 78.0°C dry heat (see clause 9, sub-clause j of our product Warranty). Please refer to Clause 12 of the Warranty – Roof Products for full details.

- Off White / Surfemist®
- Gull Grey / Shale Grey™
- Merino / Paperbark®
- Mist Green / Paperbark®
- Smooth Cream / Classic Cream™
- Hamptons White
- Zinc
- Birch / Dune®
- Armour Grey / Windspray

To maintain Warranty cover with dark colours it is therefore recommended that a Thermosetting Phenolic Composite (TPC) or Mineral Wool (MW) core be used for all colours not listed above.

Colour names are registered trademarks of Bluescope Steel Limited

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Please refer to the web page for the available colour range, paint finishes and relevant warranty conditions.



DeltaOrb-DC 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

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



* The CodeMark Australia Certificate CM40330 specifically only complies with the non-combustibility requirements of Part H3 of the National Construction Code (NCC2022) Volume Two, for the Mineral Wool section of the panel. And excludes all other stated information on this Specification Sheet.



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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