

CodeMark

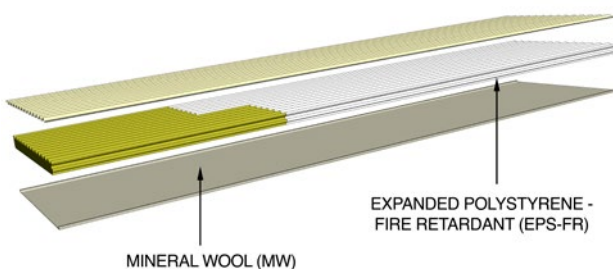
**DeltaOrb-DC** is a CodeMark Approved Patented Insulated Roofing System for boundary applications that complies with the non-combustibility requirements of Part 3.7 of the National Construction Code (NCC) 2019 Volume Two.

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.

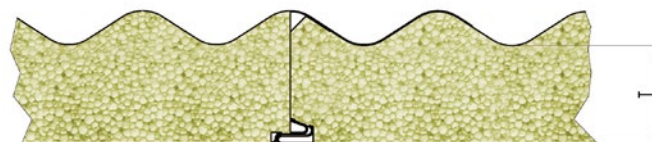
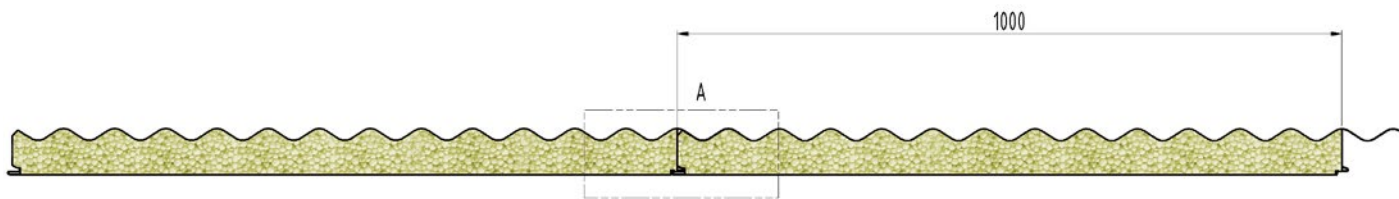
### Early Fire Hazard Properties AS 1530.3:1999

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



<b>Steel Skin Details</b> ColorBond®	Top Skin	0.42mm / G550 AZ150
	Bottom Skin	0.55mm / G300 Z275
<b>Max. Skin Temperature</b>	78°C Dry Heat	
<b>Core Material Details</b>	Minimum of 900mm Mineral Wool with the balance in EPS-FR	
<b>Thermal Conductivity</b> AS 1366.2/ASTM C 518	Minimum 0.0363 W/mK @ 23.0°C	
<b>Core Density</b>	Average density for a 6.0 metre panel is 30.8kg/m <sup>3</sup>	
<b>Certification of Conformity</b>	* CodeMark Australia Certificate CM40330	
<b>Panel Weight (kg/m<sup>2</sup>)</b> (based on average weight over a 6 metre panel)	50mm Panel	13.1
	75mm Panel	13.9
	100mm Panel	14.7
	125mm Panel	16.7
	150mm Panel	18.7
<b>R Value - Minimum</b>	50mm Panel	1.3
	75mm Panel	2.0
	100mm Panel	2.7
	125mm Panel	3.4
	150mm Panel	4.1
<b>Sheet Coverage</b>	1000mm	
<b>Length (mm)</b>	Cut to Length Min of 1800mm	
<b>Length Tolerance (mm)</b>	5mm+/-	
<b>Thickness (mm)</b>	50, 75, 100, 125, 150	
<b>Minimum Roof Pitch</b>	3° for Class 10 Buildings	
<b>Flatness Standards</b>	0.40mm	Surface deformations can be apparent to the naked eye when observed in certain lighting conditions
	0.60mm	
<b>Innovation Patent No.</b>	2021104435	



Detail A

### DeltaOrb-DC Acoustic Values

Frequency	DeltaOrb-DC Acoustic Values	
	50mm	125mm
100	15.41	15.00
200	18.81	17.70
400	22.31	19.69
800	23.69	17.31
1000	25.61	18.29
1250	21.01	30.10
2000	34.79	37.30
2500	41.70	37.09
5000	44.61	39.90
<b>STC</b>	24.00	23.00
<b>RW</b>	25.00	24.00

**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 1276-1979 and AS/NZS ISO 717.1:2004 were used to calculate the Sound Transmission Class (STC) and the Weighted Sound Reduction Index (Rw) of **DeltaOrb-DC**.

### 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 / Surfmist ®
- 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 3.7 of the National Construction Code (NCC 2019) Volume Two, for the Mineral Wool section of the panel. And excludes all other stated information on this Specification Sheet.



Innovation Patent Number 2021104435