

MAC Polaris 50

MAC Polaris 50 is a metal cladding for ceilings, soffit linings and internal walling.

BMT & STEEL BASE	0.55, G300
RIB HEIGHT	50mm
RIB WIDTH	50mm
COVER WIDTH	500mm
SPANS	2400mm*

* For ceilings and soffit linings the recommended span is 1800mm to ensure deflections are minimised.

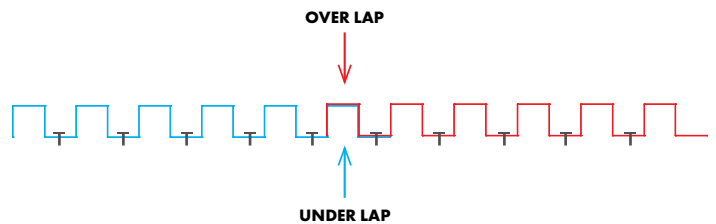
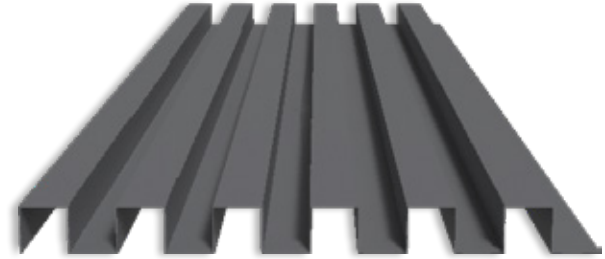
FASTENERS & FIXING

MAC Polaris 50 is pan fixed using 5 fasteners per sheet.

STEEL BATTEN ≥ 0.75mm	#12 - 11 x 35 Hex Head Screws with or without EPDM Washers
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MATERIAL AVAILABILITY

COLORBOND® steel



WALL SPAN CHART

Tables and values must be used in conjunction with the Design Notes.
These tables apply only for the listed products.

DESIGN NOTES

- Metal supports are produced from a minimum G450 supports.
- End spans should be 80% of internal spans.
- Based on testing to AS1562 and AS4040

0.55mm POLARIS 50 WITH 5 FASTENERS/SHEET/BATTEN

FASTENER SIZE	SPAN TYPE	SUPPORT THICKNESS mm	WALL SPANS (mm) FOR WIN CATEGORY					
			N1	N2	N3	N4	N5	N6
#12	Internal	1.5+	2400	2400	2400	2400	2400	2400
		1.2	2400	2400	2400	2400	2400	2300
		1.0	2400	2400	2400	2400	2400	2150
		0.75	2400	2400	2400	2400	2400	1800
		0.55	2400	2400	2400	2400	1750	1300
	End/Equal	1.5+	2100	2100	2050	2000	2000	1950
		1.2	2100	2050	2050	2000	2000	1850
		1.0	2050	2050	2000	2000	1950	1700
		0.75	2050	2050	2000	2000	1900	1400
		0.55	2050	2000	2000	1900	1400	-
#10	Internal	1.5+	2400	2400	2400	2400	2400	2400
		1.2	2400	2400	2400	2400	2400	1800
		1.0	2400	2400	2400	2400	1750	1300
		0.75	2400	2400	2400	1950	1350	-
		0.55	2400	2400	2400	1950	1350	-
	End/Equal	1.5+	2100	2050	2050	2000	1950	1900
		1.2	2050	2050	2000	2000	1900	1400
		1.0	2050	2000	2000	1900	1400	-
		0.75	2000	2000	1950	1550	-	-
		0.55	2000	2000	1950	1550	-	-

LIMIT STATE CAPACITY TABLES

Tables and values must be used in conjunction with the Design Notes.
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0.55mm POLARIS 50 WITH 5 FASTENERS/SHEET/BATTEN

FASTENER SIZE	LIMIT STATE	SPAN TYPE	SUPPORT THICKNESS mm	PRESSURE (kPa) FOR SPAN (mm)				
				1200	1500	1800	2100	2400
#12	SERVICEABILITY	Internal	All	5.99	6.45	6.94	7.91	9.05
		End/Equal		5.27	5.66	6.09	6.95	7.95
	STRENGTH	Internal	1.5+	9.41	9.59	9.78	9.87	9.97
			1.2	9.41	9.30	8.75	7.50	6.65
			1.0	9.41	8.68	7.20	6.12	5.39
			0.75	9.16	7.32	6.05	5.15	4.56
			0.55	6.65	5.32	4.43	3.74	3.31
		End/Equal	1.5+	8.46	8.63	8.80	8.88	8.97
			1.2	8.46	8.30	7.87	6.75	5.98
			1.0	8.46	7.81	6.48	5.51	4.85
			0.75	8.21	6.59	5.44	4.66	4.10
			0.55	5.98	4.79	3.99	3.37	2.98
#10	SERVICEABILITY	Internal	All	5.99	6.45	6.94	7.91	9.05
		End/Equal		5.27	5.66	6.09	6.95	7.95
	STRENGTH	Internal	1.5+	9.41	9.59	8.89	7.62	6.64
			1.2	9.16	7.32	6.10	5.23	4.56
			1.0	6.65	7.32	4.43	3.74	3.31
			0.75	4.98	3.99	3.32	2.80	2.48
			0.55	4.98	3.99	3.32	2.80	2.48
		End/Equal	1.5+	8.46	8.63	8.01	6.86	5.98
			1.2	8.24	6.59	5.51	4.71	4.10
			1.0	5.98	4.79	3.99	3.37	2.98
			0.75	4.45	3.59	2.99	2.52	2.23
			0.55	4.45	3.59	2.99	2.52	2.23

DESIGN NOTES

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OIL CANNING

Oil canning is a characteristic of light gauge cold formed metal roofing and cladding panels that are folded or roll formed. It appears as waviness or rippling in the flat areas of the panel and may affect the overall aesthetic outcome. It can occur on all types of metal, including steel, zinc, copper and aluminium. Metal panels with less flat areas, such as corrugated profiles, are less likely to be affected by oil canning. Oil canning may be more likely to occur with seasonal and temperature changes. Oil canning is not considered a defect - the integrity of the material is not compromised by oil canning. Rather it is an aesthetic issue. The Architect, Builder and Homeowner needs to be aware that Oil Canning may affect the overall aesthetic outcome. There are measures that can be taken during design and installation to minimise the risk, such as ensuring the plywood is flush, the panels are fixed vertically, limiting the continuous length of each panel and reducing the size of the pan. For more information please contact your Metroll branch.

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All reasonable care has been taken in the compilation of the information contained in this brochure. All recommendations on the use of Metroll products are made without guarantee as conditions of use are beyond the control of Metroll. It is the customers responsibility to ensure that the product is fit for its intended purpose and that the actual conditions of use are suitable. Metroll pursues a policy of continuous development and reserves the right to amend specifications without prior notice. The Metroll M and Logo are registered trademarks of Metroll. COLORBOND® and REDCOR® are registered trademarks of BlueScope Steel Limited.