

metroll architectural collection

MAC Interlocking Panel December 2023







MAC - the Metroll Architectural Collection, is a range of contemporary roofing and walling products created specifically with leading edge design in mind.

The many options for material and application provide limitless scope for design, and the quick and easy installation saves cost and time.



MAC Interlocking Panel



MAC Interlocking Panel walling is a concealed fix profile recognised by its shadow-line express joint.



metroll architectural

<u>collection</u>

MAC Interlocking Panel can be installed horizontally, vertically or diagonally to create an ultra-modern and streamlined aesthetic. Panel width and express joints can be customised, giving flexibility on complex designs.

STANDARD PANEL COVER	WA	203mm, 296mm				
	SA	200mm, 300mm				
PANEL WIDTHS		190 to 500mm Custom widths available by enquiry.				
PANEL LENGTH	WA	900 to 6000mm				
Restrictions may apply	SA	500 to 8000mm				
RIB HEIGHT		25mm				
EXPRESS WIDTH		15mm, 20mm				

FASTENERS

MAC Interlocking Panel is fastener fixed through the female tab.

STEEL BATTEN	10mm x 16mm Wafer or Hex Head Class 4			
TIMBER BATTEN	10mm x 25mm Wafer or Hex Heads Class 4			

MATERIAL AVAILABILITY

COLORBOND® steel COLORBOND® steel - Matt finish COLORBOND® steel - Metallic finish COLORBOND® Ultra steel REDCOR® Weathering Steel Copper* Aluminium* *Subject to enquiry

PHOTOGRAPHY

Front cover photo:

Albany Senior High School - Performing Arts Centre - WA Courtesy of Roberts Gardiner Architects

Back cover photo:

Busselton Central Shopping Centre - WA

LIMIT STATE CAPACITY TABLES

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

COVER	FASTENERS	SUPPORT THICKNESS	LIMIT	WALL SPAN TYPE Internal End Equal Internal End Equal Internal Equal Internal End Equal Internal	PRESSURE (kPa) FOR SPAN (mm)			
		(mm)	SIAIE		450	600	900	1200
Up to 300mm	#10 Wafer or Hex Head screws through the overlap	Minimum 0.55mm, G550 Steel Battens	Serviceabilty	Internal	5.99	6.12	5.91	4.31
				End	3.14	3.21	3.10	2.26
				Equal	2.99	2.99	2.95	2.16
			Strength	Internal	4.50	4.12	2.90	2.37
				End	3.89	3.56	2.51	2.05
				Equal	4.09	4.09	2.63	2.16
From 301mm to 400mm	#10 Wafer or Hex Head screws through the overlap	Minimum 0.55mm, G550 Steel Battens	Serviceabilty	Internal	2.27	2.76	3.29	2.45
				End	1.19	1.45	1.73	1.29
				Equal	1.14	1.38	1.64	1.23
			Strength	Internal	3.85	3.17	2.10	1.61
				End	3.32	2.74	1.82	1.39
				Equal	3.50	2.88	 FOR SPAN (900 5.91 3.10 2.95 2.90 2.51 2.63 3.29 1.73 1.64 2.10 1.82 1.91 1.98 1.04 0.99 1.70 1.47 1.55 	1.46
		Minimum 0.55mm, G550 Steel Battens	Serviceabilty	Internal	0.42	1.08	1.98	1.52
From 401mm to 500mm	#10 Wafer or Hex Head screws through the overlap			End	0.22	0.57	1.04	0.80
				Equal	0.21	0.54	0.99	0.76
			Strength	Internal	3.52	2.70	1.70	1.22
				End	3.04	2.33	1.47	1.06
				Equal	3.20	2.45	1.55	1.11

SPAN CHARTS

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

COVER	WALL SPAN TYPE	WIND CATEGORY							
		NI	N2	N3	N4	N5	N6		
Up to 300mm	Internal	1200	1200	1200	850	450			
	End	1050	1000	950	650				
	Equal	1200	1200	850	550				
From 301mm to 400mm	Internal	1200	1200	900	600				
	End	1000	1000	700	450				
	Equal	1200	1200	850	450				
From 401mm to 500mm	Internal	1200	900	550*					
	End	1000	700	450*	*At serviceability loads distortions may be excessive				
	Equal	1100	800	450*					

DESIGN NOTES TO TABLES

- Spans shown reflect the minimum value of the Serviceability and Strength.
- Wind category is based on AS 4055 and results include an allowance for local pressure factors.
- For most economic results use longer internal spans than end spans (in a ratio of 10:8).

MAC INTERLOCKING PANEL INSTALLATION

Installation of Vapour Barrier

• Install in accordance with manufacturers recommendations.

Installation of Substructure

- Top Hats or timber battens should be installed at maximum spaces relevant to wind load.
- It is essential that the substructure should be level and plumb and at right angles to the panels.
- For best results it is recommended that MAC Interlocking Panels are installed on plywood.

NOTE:

It is important that the plyood is level, including the joints between 2 sheets.

If plywood is used, plywood supports should be at no more than 600mm centres or in accordance with the plywood manufacturers recommendations.

Installation of Flashings

- Transverse flashings need to be fixed to the cladding at no more than 300mm centres.
- Install longitudinal flashings at each batten.
- Back flashings (where required), should be full length where possible.
- Fix back flashings using Tek screws with a Neo washer or sealed rivets at maximum 1200mm centres.
- Overlap joints/laps should be a minimum of 100mm. The top of all backing plates should have a 10mm return fold to prevent water from being blown over the end of the plate.
- Backing plates for express joints should be 100mm wide overall with a 20mm return fold on both sides.
- Toe mould, parapet caps, head mould flashings etc. should all be installed and sealed prior to the installation of the starter panel.



Installation of MAC Interlocking Panels

- Where panels are to be installed horizontally, the top Interlocking Panel shall be installed first with the 'female' side facing down.
- For fasteners, refer to the table on page 1.
- At each supporting member, screw fix with the negative reveal/express joint. Ensure the screw engages both legs of each adjoining panel.
- When required, panel stop ends should be formed in the factory or on site.
- Both internal and external corners can be formed from folded MAC Interlocking Panels.
- It is possible to incorporate double male/double female panels in order to accomodate directional and dimensional changes in the design.
- MAC Interlocking Panel is not a waterproof barrier.





ASSEMBLY 3



WA

METROLL PERTH 5 Chilver St Kewdale, WA 6105 P: 08 9365 5444

METROLL KALGOORLIE 45 Gt. Eastern Hwy West Kalgoorlie, WA 6430 P: 08 9024 1388 METROLL ALBANY 179 Chester Pass Rd Albany, WA 6330 P: 08 9841 6966 METROLL BUNBURY 11 Proffitt St Bunbury, WA 6230 P: 08 9796 9796

SA

METROLL ADELAIDE 70 - 72 Rundle Rd Salisbury South, SA 5106 P: 08 9365 5444

OIL CANNING is an inherent characteristic of non-ferrous metals with broad flat areas. 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 Metroll.

MAC_IPI_DEC23

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.

