

LYSAGHT PANELRIB

LYSAGHT PANELRIB® has a fluted profile making it suitable for many applications where flat sheet would not normally be considered. The longitudinal flutes provide rigidity along the length of the sheet while retaining full flexibility across the width.

Used on exterior and interior walls and on straight or curved surfaces with flutes horizontal or vertical, LYSAGHT PANELRIB is easy to fix

- ▲ A range of trims are available in plastic or aluminium.
- ▲ Long, straight lengths minimise fixing costs.

Common Uses of this product

Ceilings, partition facings, screens, garage doors, fascia and barge boards.

Colour Range

PANELRIB is available in an attractive range of colours in COLORBOND® factory pre-painted steel and in unpainted ZINCALUME® aluminium/zinc alloy coated steel.

ZINCALUME® steel provides a minimum of twice the life of conventional galvanised steel in the same environment.

The standard COLORBOND® offers a full range of 20 contemporary colours suitable for all building projects, but COLORBOND® METALLIC finish provides superior aesthetic qualities, and COLORBOND® ULTRA finish is intended for severe coastal or industrial environments.



Roofing & Walling Solutions



Rainwater Solutions



Structural Solutions



Fencing Solutions



Home Improvements

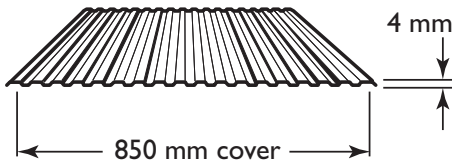


House Framing Solutions



Customer Support

LYSAGHT PANELRIB



Masses (based on 850 cover)

BMT (mm)	kg/m	kg/m ²	m ² /t
0.35 ZINCALUME®	2.74	3.23	310
0.35 COLORBOND®	2.80	3.29	304
0.42 ZINCALUME®	3.26	3.83	261
0.42 COLORBOND®	3.32	3.90	256

Material Specifications

PANELRIB is manufactured from ZINCALUME® zinc/aluminium alloy-coated steel complying with AS1397-G550-AZ150 (550MPa minimum yield strength, 150g/m² minimum coating mass as determined by the prescribed triple spot tests).

The COLORBOND® prepainted steel complies with AS/NZS 2728:1997.

Lengths

Sheets are supplied custom cut.

Tolerance

Length Tolerance: +0, -15mm

Width Tolerance: +0, -4mm

Maximum Support Spacings

The maximum recommended support spacings are based on testing in accordance with AS1562.1-1992 and AS4040.2-1992.

Wall spans consider resistance to wind pressure only.

The pressure considered is based on buildings up to 10m high in Region B, Terrain Category 3, $M_s=0.85$, $M_t=1.0$, $M_r=1.0$ with the following assumptions made:

Walls:

$C_{pi}=+0.20$, $C_{pe}=-0.65$, $K_1=2.0$ for single spans, $K_1=1.5$ for internal spans.

These spacings may vary by serviceability and strength limit states for particular projects.

Maximum Support Spacings (mm)

Type of Span	Thickness	
Walls	0.35	0.42
Single Span	1100	1200
End Span	1200	1200
Internal Span	1200	1200
Overhang	150	150

• For walls: the data are based on pressures (see wind pressures table).

• Table data are based on supports of 1mm BMT.

Limit state wind pressures

LYSAGHT PANELRIB offers the full benefits of the latest methods for modelling wind pressures. The wind pressure capacity table is determined by full scale tests conducted at BLUESCOPE LYSAGHT's NATA-registered testing laboratory, using the direct pressure-testing rig.

Testing was conducted in accordance with AS 1562.1—1992 *Design and installation of sheet roof and wall cladding—Metal*, and AS 4040.2—1992 *Resistance to Wind Pressures for Non-cyclonic Regions*.

The pressure capacities for serviceability are based on a deflection limit of $(span/120) + (maximum\ fastener\ pitch/30)$.

The pressure capacities for strength have been determined by testing the cladding to failure (ultimate capacity). These pressures are applicable when the cladding is fixed to a minimum of 1.0 mm, G550 steel.

For material less than 1.0 mm thick, seek advice from our information line.

Adverse conditions

If this product is to be used in marine, severe industrial, or unusually corrosive environments, ask for advice from our information line.

Metal & timber compatibility

Lead, copper, bare steel and green or some chemically-treated timbers are not compatible with this product; thus don't allow any contact of the product with those materials, nor discharge of rainwater from them onto the product. If there are doubts about the compatibility of products being used, ask for advice from our information line.

Maintenance

Optimum product life will be achieved if all external surfaces are washed regularly. Areas not cleaned by natural rainfall (such as the tops of walls sheltered by eaves) should be washed down every six months.

Storage and handling

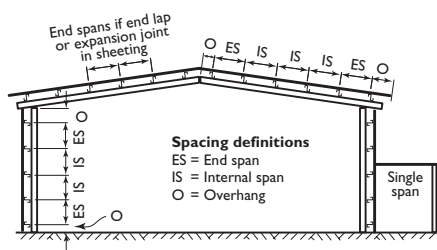
Keep the product dry and clear of the ground. If stacked or bundled product becomes wet, separate it, wipe it with a clean cloth and stack it to dry thoroughly.

Handle materials carefully to avoid damage: don't drag materials over rough surfaces or each other; carry tools, don't drag them; protect from swarf.

PANELRIB: Limit state wind pressure capacities (kPa)

Type of Span	Fasteners per sheet per support	Limit State	Span (mm)									
			600	700	800	900	1000	1100	1200	1300	1400	1500
Base Metal Thickness 0.35mm												
Single	4	Serviceability	2.11	1.74	1.39	1.06	0.76	0.51	0.31	0.18	-	-
		Strength	9.45	8.55	7.65	6.85	6.10	5.40	4.85	4.40	-	-
	8	Serviceability	2.01	1.67	1.34	1.03	0.75	0.52	0.33	0.20	-	-
		Strength	12.00	12.00	12.00	12.00	10.80	9.70	8.80	8.10	-	-
End	4	Serviceability	3.39	2.80	2.22	1.68	1.19	0.78	0.45	0.23	-	-
		Strength	7.35	6.60	5.85	5.15	4.50	3.90	3.40	3.00	-	-
	8	Serviceability	2.78	2.29	1.82	1.38	0.98	0.64	0.37	0.19	-	-
		Strength	11.25	10.20	9.25	8.30	7.45	6.65	6.00	5.45	-	-
Internal	4	Serviceability	3.95	3.32	2.71	2.13	1.61	1.15	0.78	0.51	0.32	0.19
		Strength	8.25	7.45	6.70	5.95	5.30	4.70	4.20	3.80	3.55	3.35
	8	Serviceability	3.63	3.02	2.44	1.88	1.38	0.95	0.60	0.35	0.19	0.10
		Strength	12.00	12.00	12.00	11.00	9.85	8.85	8.00	7.30	6.75	6.35
Base Metal Thickness 0.42mm												
Single	4	Serviceability	2.18	1.82	1.48	1.15	0.86	0.61	0.41	0.27	0.18	0.13
		Strength	12.00	12.00	12.00	11.15	10.00	8.95	8.10	7.30	6.70	6.15
	8	Serviceability	1.92	1.63	1.34	1.07	0.82	0.61	0.44	0.32	0.23	0.17
		Strength	12.00	12.00	12.00	12.00	12.00	11.65	10.80	10.15	9.65	9.30
End	4	Serviceability	3.60	3.00	2.42	1.87	1.38	0.95	0.61	0.37	0.21	0.12
		Strength	8.25	7.50	6.75	6.05	5.40	4.80	4.30	3.90	3.55	3.25
	8	Serviceability	2.90	2.37	1.86	1.38	0.95	0.59	0.31	0.12	-	-
		Strength	12.00	12.00	12.00	12.00	10.90	9.70	8.70	7.90	-	-
Internal	4	Serviceability	6.21	5.09	4.01	3.00	2.09	1.32	0.73	0.33	0.10	-
		Strength	10.35	9.35	8.40	7.50	6.70	5.95	5.40	4.90	4.60	4.35
	8	Serviceability	4.60	3.79	3.00	2.27	1.61	1.05	0.61	0.32	0.14	0.07
		Strength	12.00	12.00	12.00	12.00	12.00	11.35	10.35	9.50	8.90	8.40

* A capacity reduction factor of $\phi = 0.9$ has been applied to strength capacities. Supports must be not less than 1 mm BMT.



Cutting

For cutting thin metal on site, we recommend a circular saw with a metal-cutting blade because it produces fewer damaging hot metal particles and leaves less resultant burr than a carborundum disc.

Cut materials over the ground and not over other materials.

Sweep all metallic swarf and other debris from roof areas and gutters at the end of each day and at the completion of the installation. Failure to do so can lead to surface staining when the metal particles rust.

Sealed joints

For sealed joints use screws or rivets and neutral-cure silicone sealant branded as suitable for use with galvanised or ZINCALUME® steel.

Non-cyclonic areas

The information in this brochure is suitable for use only in areas where a tropical cyclone is unlikely to occur as defined in AS 1170.2—1989 *SAA Loading Code, Part 2: Wind Loads*.

Ask for advice from our information service on designs to be used in cyclonic areas.

Installation

PANELRIB steel cladding can be attached to the frame with the flutes either vertical or horizontal. When fixing with flutes horizontally, ensure that the top sheet overlaps the sheet below it.

If end laps are necessary because of very long runs, allow at least 75 mm lap.

For sheets fixed in external applications where sealing is required, seal end laps with a suitable sealant.

Location of Fasteners

A fastener should be located either at the side lap or adjacent to it. For a quality finish, fasteners at the ends of PANELRIB sheets, including end laps, should be located at every second valley. At intermediate supports, four fasteners should be used equidistant across the sheet.

Fastener without insulation

	Fixing to steel up to 2 mm thick	Fixing to Timber
Valley Fixed	<i>Metal Tek</i> s screws with hex. washer-head 10-16x16	<i>Type 17</i> screws with hex. washer-head Softwood & Hardwood: 10-12x20
Fasteners per sheet per support (Number of fasteners depends on wind pressure)		

For internal applications not subject to wind loads, the number of fasteners may be reduced by 50%, except for ceiling applications.

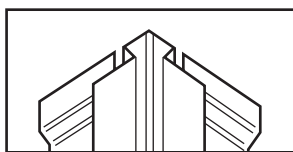
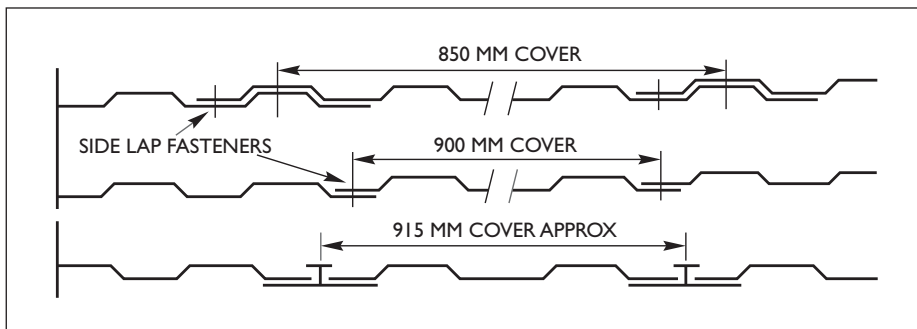
Joining and Edge Treatments

Suggested steel, plastic or aluminium mouldings are illustrated here. Please contact your local office for availability of mouldings.

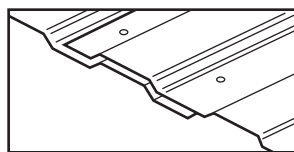
Side Lapping

Three types of side lapping methods are used: the overlapping flute, the butt joint and the edge lap joint.

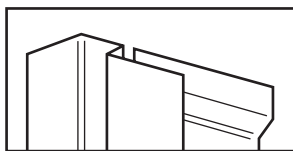
When using the overlapping or edge lap joint methods, side lap fasteners are required at 200-300 mm centres.



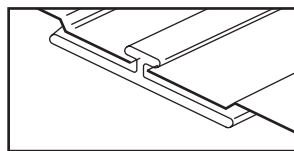
STEEL CORNER



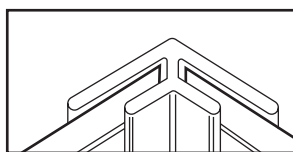
OVERLAP JOINING



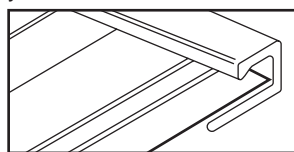
STEEL EDGE



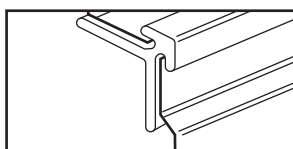
JOIN STRIP



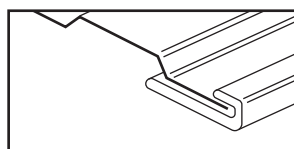
INTERNAL/EXTERNAL CORNER



ENDCAP



EXTERNAL/INTERNAL CORNER



EDGE COVER



Information, brochures and
your local distributor

1800 641 417

Please check the latest information
which is always available at
www.lysaght.com

© Copyright BlueScope Steel Limited 22 September 2003

LYSAGHT®, PANELRIB®, COLORBOND® and ZINCALUME®
are trademarks of BlueScope Steel Limited
A.B.N. 16 000 011 058

The LYSAGHT® range of products is exclusively made by
BlueScope Steel Limited trading as BlueScope Lysaght.



9 320075 0333 16