LYSAGHT®
MULTICLAD® OPTIMA

Steel wall cladding with wider width

Structural Solutions

Roofing & Walling Solutions

Truss

LYSAGHT

LYSAGHT®
MULTICLAD® OPTIMA

Steel wall cladding with wider span

LYSAGHT® MULTICLAD® OPTIMA now has a wider span, which makes it easier and even more economical to install. It provides versatile and aesthetic walling solutions for all types of building. It is also well suited for garages, screens and fascia. The remarkable strength and multifunctional usage of LYSAGHT® MULTICLAD® OPTIMA clearly establishes it as the best profile for a multitude of applications.

Finishes	Base Metal Thickness (mm)	Total Coated Thickness (mm)	kg/m	kg/m²
ZINCALUME® steel	0.42	0.47	4.23	3.81
COLORBOND® steel	0.42	0.47	4.30	3.87

MATERIAL SPECIFICATIONS

LYSAGHT® MULTICLAD® OPTIMA is made from:

- ZINCALUME® aluminium/zinc alloy-coated steel complying with AS1397 - 2001, G550, AZ150 (550 MPa minimum yield stress, 150 g/m² minimum coating mass), which provides a minimum of twice the life of conventional galvanised steel in the same environment
- The COLORBOND® steel complying with AS/NZS 2728 – 1997, which comes in an attractive range of colours.

- Attractive trapezoidal multi-ribbed profile.
- Quick and easy to install.
- Typically used for walling in industrial, commercial and residential buildings such as garages, screens and fascias.
- Can be supplied custom cut or in stock lengths.

PRODUCT PROFILE

LENGTHS

Lengths are custom cut. Check maximum and minimum with your supplier.

TOLERANCES

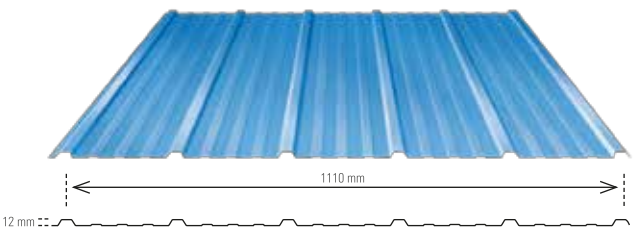
Length: +0mm, – 15mm
Width: + 4mm, – 4mm

COLOURS

COLORBOND® steel is available in a full range contemporary colours suitable for all building projects. COLORBOND® steel finish provides superior aesthetic qualities, and COLORBOND® ULTRA steel finish is intended for severe coastal or industrial environments.

PHYSICAL PROPERTIES OF LYSAGHT® MULTICLAD® OPTIMA

Steel Grade (MPa)	G550 (550MPa minimum yield stress)
Effective Width of Coverage	1100mm
Depth of Rib	12mm
Base Metal Thickness	0.42mm



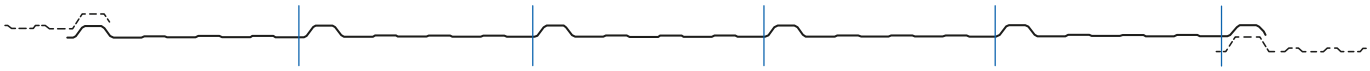
PERFORMANCE

MAXIMUM SUPPORT SPACING

LYSAGHT® MULTICLAD® OPTIMA	
Type of span	**(mm)**
Single span	1200
End span	1600
Internal span	1800
Overhang	150
• Table data are based on supports of 1mm BMT	

LYSAGHT® MULTICLAD® OPTIMA is not recommended for roofing.
The maximum recommended support spacings are based on testing in accordance with AS1562.1992, and AS4040.2-1992.

Fasteners without insulation			
	Fixing to steel up to 0.75mm BMT	**Fixing to steel >0.75mm to 3mm BMT**	**Fixing to timber**
Valley fixed	Type 17 screw with hex & washer head 10-12 x 20	Self Drilling Self Tapping screw with hex & washer-head 10-16 x 16	Type 17 screws hex & washer-head *Softwood:* 10-12 x 30 *Hardwood:* 10-12 x 20



Valley fix 5 fasteners adjacent to each rib

FASTENERS

Where insulation is to be installed, you need to increase the length of the screws given below, depending on the density and thickness of the insulation. When the screw is properly tightened:

- into metal: there should be at least three threads protuding past the support you are fixing to, but the Shankguard must not reach that support;
- into timber: the screw must penetrate the timber by the same amount that the recommended screw would do if there were no insulation.

LYSAGHT® MULTICLAD® OPTIMA : LIMIT STATE WIND PRESSURE CAPACITIES (kPa)

LYSAGHT® MULTICLAD® OPTIMA 0.42MM BMT / 0.47MM TCT														
			For Wall (c/c) Span (mm)**											
Span type	**Fasteners per sheet**		**600**	**700**	**800**	**900**	**1000**	**1100**	**1200**	**1300**	**1400**	**1500**	**1600**	**1700**	**1800**
Single	5	Serviceability	3.12	2.57	2.07	1.63	1.24	0.92	0.65	0.44	0.29	0.25	0.25	0.25	0.25
		Strength*	10.62	10.44	10.44	10.33	10.33	10.33	9.93	9.41	8.79	8.05	7.19	6.23	5.15
End	5	Serviceability	3.14	2.79	2.46	2.16	1.88	1.62	1.39	1.18	1.00	0.84	0.70	0.59	0.50
		Strength*	11.34	9.97	8.73	7.62	6.64	5.78	5.06	4.46	3.99	3.65	3.45	3.41	3.41
Internal	5	Serviceability	3.86	3.40	2.97	2.57	2.21	1.89	1.60	1.35	1.13	0.94	0.79	0.67	0.59
		Strength*	9.77	8.78	7.87	7.04	6.30	5.64	5.06	4.57	4.16	3.84	3.59	3.44	3.36
* A capacity reduction factor of Ø = 0.9 has been applied to strength capacities. Strength capacity is based on 1.00mm support material ** Foot traffic load is not allowed on an area between the supports if the span length is greater than the data in the Maximum Support Spacing table above.														

LIMIT STATES WIND PRESSURES

The wind pressure capacities are based on tests conducted at BlueScope Lysaght's NATA registered testing laboratory. 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 Pressure for Non-cyclonic Regions.

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

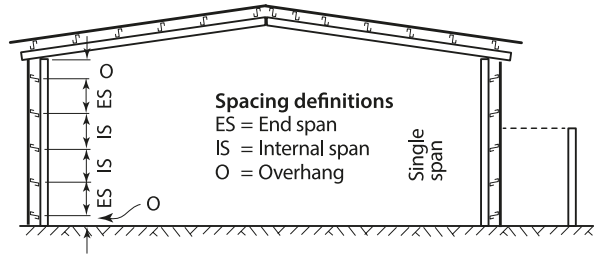
The presssure capacities for strength have been determined by testing the cladding to failure (ultimate capacity).

These pressure are applicable when the cladding is fixed to a minimum of 1.0mm, G550 steel.

For material less than 1.0mm thick, seek advice from our technical sales representatives.

ADVERSE CONDITIONS

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



METHOD STATEMENT AND GENERAL NOTES

METAL & TIMBER COMPATIBILITY

Lead, copper, free carbon, bare steel and green os some chemically-treated timber are not compatible with this product. Don't allow any contact of the product with those materials, or discharge of rainwater from them onto the product. Supporting members should be coated to avoid problems with underside condensation. If there are doubts about the compatibility of other products being used, ask for advice from our information line.

MAINTENANCE

Optimum product life will be achieved if all external walls 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.

SAFETY, STORAGE AND HANDLING

LYSAGHT® product may be sharp and heavy.

It is recommended that heavy-duty cut resistant gloves and appropriate manual handling techniques or a lifting plan be used when handling material.

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

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

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.

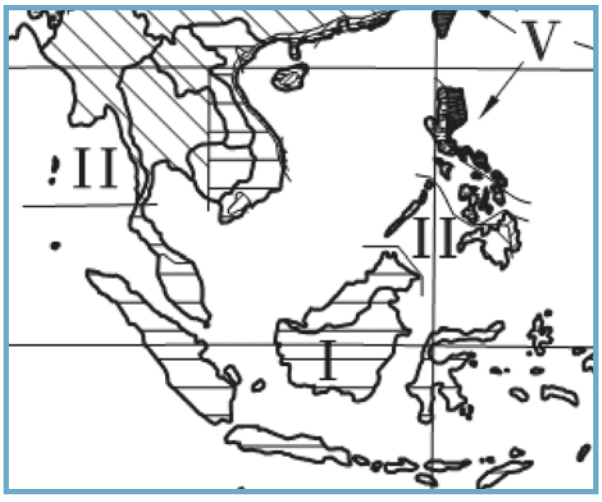
Sweep all metallic swarf and other debris from roof areas and gutters at the end of each day and at the completion of the installation. Failure to do so can lead to surface staining when the metal particles rust.

SEALED JOINTS

For second 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 ares where a tropical cyclone is unlikely to occur as defined in AS 1170.2-2002. Map and table (at below taken from HB212-2002.



Wind speeds versus return period
(3 s gust, 10 m height, open country terrain)

Handbook Level	Description	Equation for V_R	V_{50}	V_{500}
I	Strong thunderstorms and monsoon winds	$70 - 56R^{0.1}$	32	40
II	Moderately severe thunderstorms and extra-tropical gales	$67 - 41R^{0.1}$	39	45
III	Severe thunderstorms and moderate or weakening typhoons/tropical cyclones	$106 - 92T^{0.1}$	44	57
IV	Strong typhoons/ tropical cyclones	$122 - 104R^{0.1}$	52	66
V	Very strong typhoons/ tropical cyclones	$156 - 142R^{0.1}$	60	80

Table summarises the proposed relationships between 3 s gust wind speed and return period for the five levels in the handbook (see map above).

The values are for 50 years and 500 years return periods.

ZINCALUME® steel and COLORBOND® steel

Strong brands, quality materials

LYSAGHT® PRODUCTS ARE MANUFACTURED FROM HIGH QUALITY ZINCALUME® STEEL AND COLORBOND® STEEL, WHICH ARE LEADING BRANDS WITH A WIDE RANGE OF APPLICATIONS. THESE PRODUCTS HAVE BEEN USED WITH STRIKING EFFECT BY LEADING ARCHITECTS TO CREATE THE LATEST IN MODERN BUILDING DESIGNS, THROUGH TO CLASSIC ROOFING STYLES FOR RESIDENTIAL PROJECTS.

Zincalume®

ZINCALUME® steel is a premium metallic coated steel product that is composed of 55% aluminium, 43.5% zinc and 1.5% silicon. The zinc/aluminium alloy coating on ZINCALUME® steel imparts corrosion resistance of up to four times the life of galvanised steel.

ZINCALUME® steel is backed by a material warranty of up to 25 years*

Typical applications featuring ZINCALUME® steel include roofing, wall cladding and gutters.

Product Attributes

- Durable and strong.
- Superior corrosion resistance and has an excellent combination of physical and cut edge protection.
- Lightweight for easy handling.
- Thermally efficient roofing.
- Excellent flexibility in design, can be curved, for truly individual designs.
- Weather tight and secure when installed to manufacturer's specifications.
- Clear resin coating resists scuffing and handling marks.

*Warranty terms and conditions apply

Colorbond®

COLORBOND® pre-painted steel combines the superior strength of steel, the corrosion resistance and protection of a zinc/aluminium alloy (ZINCALUME® steel) coating that maintain its long lasting beauty with excellent colour retention.

It has been developed as a "Defence System Against Tropical Staining." Its unique oven-cured paint system prevents surface staining common to tropical environments caused mainly by temperature, moisture and air-borne contaminants.

COLORBOND® steel is backed by a material warranty of up to 25 years*

Product Attributes

- Available in a range of attractive colours.
- The zinc/aluminium alloy coating on ZINCALUME® steel, plus the oven-baked, prepainted finish on COLORBOND® steel provide superior corrosion resistance for long life.
- Thermally efficient. Roofs made from COLORBOND® steel absorb less heat, thus cools very quickly.
- Lightweight compared to concrete and clay tiles (on a per area basis) - reduced load on supporting structures.
- Excellent flexibility in design, can be curved, for truly individual designs.
- Flexibility of design allows for both traditional straight roof sheeting as well as innovative curved roofing designs.
- Resists cracking, chipping and peeling.

LEAD, COPPER and STAINLESS STEEL are not compatible with COLORBOND® steel and ZINCALUME® steel. Direct contact should therefore, be avoided. Where inside condensation conditions are likely, coated steel girts should be used so that any ZINCALUME® steel to bare steel contact is avoided.

Stainless steel fasteners are not recommended for ZINCALUME® and COLORBOND® steel.

Trusted Partner for Building Systems

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- COATING
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- DESIGN FLEXIBILITY
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- HI-TECH PRODUCTION
- RECYCLING
- TERMITE PROOF
- THERMAL EFFICIENCY
- WARRANTY

*Warranty terms and conditions apply.

Nov 2020