



# LCP LYCORLINER<sup>®</sup> 38

Metal Wall Cladding & Liner System



Integrity In **Partnership**



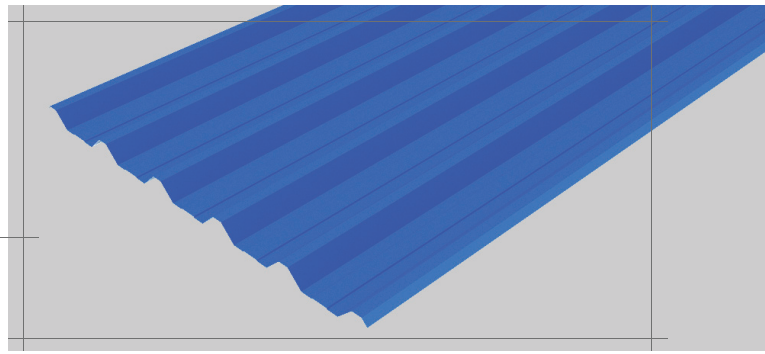
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BS EN ISO 9001 : 2008



# LCP LYCORLINER® 38

## FEATURES

**LCP LYCORLINER® 38** combines strength to produce a light weight walling profile suitable for a wide variety of applications. **LCP LYCORLINER® 38** application can also be extended as a liner tray for our premium **LCP LYCORSEAM®**



## AESTHETICALLY PLEASING & COST EFFECTIVE

- ▶ Economical – Unique blend of characteristics resulting in a low installed cost.
- ▶ Simple installation – Through fixing and easy notching of flashings.
- ▶ 1000mm cover – Quick installation and easy handling.
- ▶ Hi-Tensile Steel – Lightweight and high strength.
- ▶ Deep Ribs – Provide superior spanning capability with good water carrying capacity.
- ▶ Full Tested – A full range of load performance tables to suit almost any application.
- ▶ Also Available Crimp Curved – to suit many architectural applications.

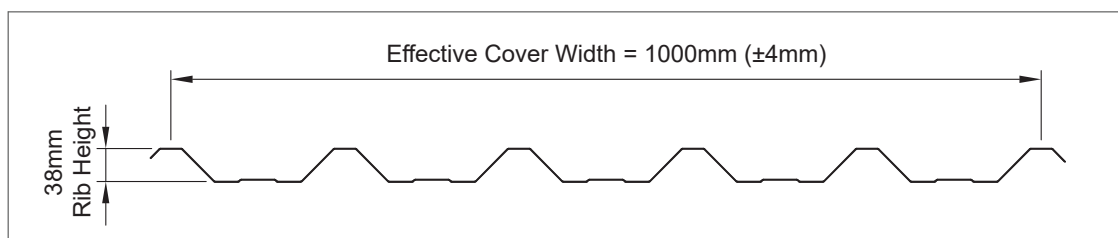
## MATERIALS

**LCP LYCORLINER® 38** is a cold roll formed roof liner and wall cladding. Steel product is G550 base material (550MPa minimum yield stress) with a ZINCALUME® or Galvalume or Galvalume polyester pre-painted finish is available in a number of colours.

## ADVERSE CONDITIONS

If **LCP Building Products Pte. Ltd.** walling and liner products is to be used within 1km of salt marine or industrial and unusually corrosive environments, please contact your **LCP Building Products Pte. Ltd.** office for advice.

**WARNING** - DO NOT USED **LCP LYCORLINER®** AS A MAIN ROOF SHEET



## ARCHITECTURAL SPECIFICATION

The roof liner and/or wall cladding metal sheets shall be 0.42mm BMT (i.e. 0.48mm TCT) or 0.48mm BMT (i.e. 0.54mm TCT) **LCP LYCORLINER® 38** as produced by **LCP Building Products Pte. Ltd.**, with trapezoidal ribs of 38mm high, spaced at 200mm centres. The effective cover width for the metal sheets shall be 1000mm.

Wherever applicable, the installation of the metal sheets shall be in accordance to the "Installation code for metal roof lining and wall cladding; Standards Australia SAA HB39-1997". The sheets shall be installed in accordance to manufacturer's recommendations. The fasteners used to secure the metal sheets to the supports shall conform to Australian Standard AS3566 and be compatible with the roof liner material used.

Sheets shall be laid in such a manner that the approved side lap faces away from the prevailing weather. A minimum of 50mm shall be provided for projection into gutters. Flashings shall be supplied in compatible materials as specified, minimum cover of flashing shall be 150mm.

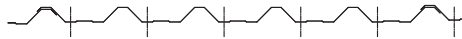
All sheets shall be fixed in a workman like manner, leaving the job clean and weather-tight. All debris (nuts, screws, cuttings, filings etc.) shall be cleaned off daily.

## INSTALLATION

Fastener Locations:-

**LCP LYCORLINER® 38** is usually fixed at every pan on each batten/purlin, i.e., 5 fasteners per sheet. This enables maximum performance and efficiency of the roof liner system.

PAN FASTENER POSITIONS (LINER)



## STRUCTURAL SPECIFICATION

### PROPERTIES

#### LCP LYCORLINER® 38 Mass/Thickness Chart

Thickness		Material Mass kg/m <sup>2</sup> of Roof Cover		
BMT (mm)	TCT* (mm)	Zincalume®	Galvanised	Colorbond®
0.42	0.48	4.23	4.37	4.37
0.70	0.76	6.91	7.05	7.05

\*TCT (Total Coat Thickness) values are based on Zincalume coating and are nominal only.

### MAXIMUM SPAN CHART

#### LCP LYCORLINER® 38 - Sheltered Suburban and other conditions as noted below

Thickness		Roof Liners Spans (mm) - 0.93kPa			Wall Spans (mm) - 0.72kPa			Overhang (Roof & Wall)	
BMT (mm)	TCT (mm)	Double Spans	Equal Spans	Internal (End Span) * Combination	Double Spans	Equal Spans	Internal (End Span) * Combination	Unstiffened	Stiffened
0.42	0.48	2050	2050	2600 (2050)	2400	2400	3100 (2500)	200	500
0.70	0.76	3300	3000	3900 (3100)	3600	3300	4200 (3300)	250	600

#### - Exposed Sub-Urban and other condition as noted below

Thickness		Roofs Spans (mm) - 1.43kPa			Wall Spans (mm) - 1.10kPa			Overhang (Roof & Wall)	
BMT (mm)	TCT (mm)	Double Spans	Equal Spans	Internal (End Span) * Combination	Double Spans	Equal Spans	Internal (End Span) * Combination	Unstiffened	Stiffened
0.42	0.48	1800	1800	2400 (2000)	2100	2100	2700 (2250)	200	500
0.70	0.76	2100	2400	2700 (2250)	3000	3000	3600 (3000)	250	600

#### CONDITIONS

The maximum span charts cover only applications defined in AS 1170.2 – 1989 Section 2 as per the region and exposures noted on each chart, and of no more than 10m in height, and shall apply only to enclosed buildings of less than 1000m<sup>2</sup> in plan area. The spans listed are based on the testing requirements of AS 1562 for both foot traffic and wind loadings, and assume both the end and first internal span to be subject to local pressure zone factors.

\* : For optimum spanning capacity, end spans are shorter than internal spans in a fixed ratio, (End Span = 0.8 × Internal Span). The Internal/End Span combinations shown must only be used in this specific ratio, rounded to the nearest 50mm.

### PERFORMANCE

#### LCP LYCORLINER® 38 Permissible Wind Pressure (kPa)

Thickness		Span Type	Maximum Span for Foot Traffic Limitation	Internal Span (End Span) Combination (mm) ‡					
BMT (mm)	TCT (mm)			(750) 900	(1000) 1200	(1250) 1500	(1500) 1800	(1750) 2100	(2000) 2400
0.42	0.48	Internal (End)	2600 (2050)	4.46	3.34	2.67	2.23	1.91	1.60
		Equal	2050	3.91	2.93	2.35	1.76	1.11	0.74
		Double	2050	3.56	2.67	2.14	1.78	1.37	0.95
		Single	1250	7.48	3.16	1.62	0.94	0.59	0.39
0.70	0.76	Internal (End)	4500 (3450)	4.77	3.58	2.86	2.39	2.05	1.79
		Equal	3450	4.19	3.14	2.51	2.09	1.79	1.57
		Double	3500	3.82	2.86	2.29	1.91	1.64	1.43
		Single	2100	9.55	7.16	4.75	2.75	1.73	1.16

‡ : Spans shown in brackets are the end spans to be used in conjunction with the internal spans shown.

Note: Spans shown in shaded (■) area are not suitable for trafficable roofs.

# MANUFACTURING and CONSTRUCTION

## LENGTH

The sheets are manufactured at **LCP Building Products Pte. Ltd.** factory or on construction site. The length of the sheet is a function of design requirements, geometry of the roof (i.e. curving or other factors), site conditions and workability and transportation constraints.

Lengths specified must be actual site measurements and not plan dimensions. The length should be measured accurately, and allowance should be made for clearance at the ridge (unless the sheet is continuous over the ridge) of normally around 50mm. At the eaves, the overhang allowed for into the gutter which is normally not less than 50mm. Where a "step down" or expansion joint is incorporated into the roof an allowance of not less than 300mm should be added. The tolerance of the length of product supplied is +0, -15mm.

## LAPPING

The minimum end lap should be 250mm when lapping metal to metal and 300mm when lapping metal to polycarbonate or fiberglass.

## FLASHING

Standard flashings are readily available for use with **LCP LYCORLINER® 38** roof liner. **LCP Building Products Pte. Ltd.** will give design advice for flashing details and will manufacture the required flashing.

## DELIVERY

Delivery can normally be made within 2 or 3 days, subject to the delivery location and material availability. Please assist us to provide undamaged product by ensuring that suitable arrangements have been made for truck unloading. When lifting sheeting by crane, care should be taken to ensure that the load is spread to prevent sheeting damage. Where a crane is not available, sufficient labour must be supplied to assist in manual unloading.

## HANDLING

**LCP LYCORLINER® 38** should be handled with care at all times to preserve the quality of the finish. Packs should always be kept dry and stored above ground level whilst on site. If however the sheets have become wet then they should be separated, wiped and placed in the open to aid in drying.

## FOOT TRAFFIC

When walking on **LCP LYCORLINER® 38** always wear clean, non-marking and flat rubber soled shoes. Avoid unnecessary foot traffic and walk on the flat of the panel at or near the supporting roof structural members as much as possible. Do not use the roof panel as a working platform.

## FASTENERS

All fasteners should conform with AS 3566 and be compatible with the roofing material used.

**Crest Fixing:** For Steel purlins, use No. 12 × 45mm Hex Head self drilling, self tapping screws with neoprene washers.

For Timber, use No. 12 × 65mm Hex Head self drilling Type 17 screws with neoprene washers. (for F11 grade timber or better).

**Pan Fixing:** For Steel purlins/girts, use the No. 10 × 16mm hex head self drilling, self tapping screws with neoprene washers.

For Timber (F11 grade timber or better), use No. 10 × 25mm hex head Type 17 screws with neoprene washers.

**Side Laps:** Use the No. 8 × 12mm Hex Head "S" point screws with neoprene washers or Monel metal sealed pop rivets.

Do not overtighten screws, ensure they are kept upright and that neoprene washers remain in position during installation. A range of "Cyclone" caps are available for even better wind load performance. Increase screw length by 10mm for installation on softwood applications. Lead head nails must not be used.

## CUTTING

Sheeting can be cut, where necessary, by means of metal snips or electric nibbler. The use of cutting discs should be avoided but if it is used, the Clean COLORBOND® pre-painted steel sheeting should be placed downwards, or carefully shielded, to minimize the risk of hot filings embedding in the painted surface.

## CLEAN UP

Ensure that all debris, nails, rivets, screws, rags, and especially filings & particles from cutting or drilling, are carefully cleared from the surface after each day's work or premature corrosion could occur.

**IMPORTANT NOTE:** The information published in this brochure is as far as possible accurate at the date of publication, however, prior to application in a particular situation, **LCP Building Products Pte. Ltd.** recommends that you obtain qualified expert advice confirming the suitability of product(s) in question for the application proposed. While **LCP Building Products Pte. Ltd.** accepts its legal obligations, be aware however that to the extent permitted by law, **LCP Building Products Pte. Ltd.** disclaims all liability (including liability for negligence) for all losses and damages resulting from the use of the information provided in this brochure.



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