Lysaght Trimdek®

LYSAGHT TRIMDEK® is a subtle square-fluted steel cladding, available in long lengths, so on most jobs you can have one sheet from ridge to gutter without end laps.

LYSAGHT TRIMDEK is made of high strength steel and despite its lightness, provides excellent spanning capacity and remarkable recovery after deformation.

The strength, spanning ability, lightness and rigidity of LYSAGHT TRIMDEK permits wide support spacings to be used with safety.

Material specifications

- Next generation ZINCALUME® aluminium/zinc/magnesium alloy coated steel complies with AS1397:2011 G550, AM125 (550 MPa minimum yield stress, 125 g/m² minimum coating mass)
- COLORBOND® is prepainted steel for exterior roofing and walling. It is the most widely used. The painting complies with AS/NZS 2728:2013 and the steel base is an aluminium/zinc alloy-coated steel complying with AS 1397:2011. Minimum yield strengths are G550 (550MPa), or G300 (300MPa) depending on profile. Minimum coating mass is AM100 (100g/m²)
- COLORBOND® METALLIC is prepainted steel for superior aesthetic qualities displaying a metallic sheen.
- COLORBOND® ULTRA is prepainted steel for severe coastal or industrial environments (generally within about 100-200 metres of the source). The painting complies with AS/NZS 2728:2013 and the steel base is an aluminium/zinc alloy-coated steel complying with AS 1397:2011. Minimum coating mass is AM150 (150g/m²)
- COLORBOND® Stainless is a pre-painted steel and is used for severe and coastal environments. The painting complies with AS/NZS 2728:2013 and the steel base is a stainless steel complying with AISI/ASTM Type 430; UNS No. S43000.

Metallic finishes are available subject to enquiry.

The base metal thickness is 0.42 or 0.48mm.

The COLORBOND® pre-painted steel complies with AS/NZS2728:2013.

Colours

TRIMDEK is available in an attractive range of colours in COLORBOND® factory pre-painted steel and in unpainted ZINCALUME® steel.

COLORBOND® steel with THERMATECH® technology

THERMATECH® solar reflectance technology is now included in the standard COLORBOND® steel palette. COLORBOND® steel with THERMATECH® technology reflects more of the sun’s heat, allowing both roofs and buildings stay cooler in summer. In moderate to hot climates, compared to roofing materials of similar colour with low solar reflectance, COLORBOND® steel with THERMATECH® can reduce annual cooling and energy consumption by up to 20%.

Maximum Support Spacings

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

Roof spans consider both resistance to wind pressure and light roof traffic (traffic arising from incidental maintenance). 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=0.85, M=1.0, M=1.0 with the following assumptions made:

- Roof:
  - C =+0.20, C =-0.90, K =2.0 for single + end spans, K =1.5 for internal spans.
- Walls:
  - C =+0.20, C =-0.65, K =2.0 for single spans, K =1.5 for internal spans.

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

Maximum support spacings (mm)

<table>
<thead>
<tr>
<th>Type of Span</th>
<th>BMT</th>
<th>0.48</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roofs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single Span</td>
<td>1100</td>
<td>1600</td>
</tr>
<tr>
<td>End Span</td>
<td>1300</td>
<td>1850</td>
</tr>
<tr>
<td>Internal Span</td>
<td>1900</td>
<td>2600</td>
</tr>
<tr>
<td>Unstiffened Overhang</td>
<td>150</td>
<td>200</td>
</tr>
<tr>
<td>Stiffened Overhang</td>
<td>300</td>
<td>350</td>
</tr>
<tr>
<td>Walls</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single Span</td>
<td>2400</td>
<td>2700</td>
</tr>
<tr>
<td>End Span</td>
<td>3000</td>
<td>3000</td>
</tr>
<tr>
<td>Internal Span</td>
<td>3000</td>
<td>3000</td>
</tr>
<tr>
<td>Overhang</td>
<td>150</td>
<td>200</td>
</tr>
</tbody>
</table>

* For roofs the data is based on foot-traffic loading.
* For walls the data is based on pressures (see wind pressures table).
* Table data is based on supports of 1mm BMT.

Lengths

Sheets are supplied custom cut.

Tolerances

- Length: ± 0mm, – 15mm, Width: ± 4mm, – 4mm

Maximum roof lengths for drainage measured from ridge to gutter (m)

Penetrations will alter the flow of water on a roof. For assistance in design of roofs with penetrations, please seek advice from our information line.
LYSAGHT TRIMDEK®: Limit State wind pressure capacities (kPa)

<table>
<thead>
<tr>
<th>Span Type</th>
<th>Limit State</th>
<th>BMT 0.42mm</th>
<th>BMT 0.48mm</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Span (mm)</td>
<td>600 900 1200 1500 2100 2400 2700 3000</td>
<td>600 900 1200 1500 2100 2400 2700 3000</td>
</tr>
<tr>
<td>Base metal thickness 0.42mm</td>
<td>Serviceability</td>
<td>600 900 1200 1500 2100 2400 2700 3000</td>
<td>Serviceability</td>
</tr>
<tr>
<td>SINGLE</td>
<td>Strength</td>
<td>600 900 1200 1500 2100 2400 2700 3000</td>
<td>Strength</td>
</tr>
<tr>
<td>END</td>
<td>Serviceability</td>
<td>600 900 1200 1500 2100 2400 2700 3000</td>
<td>Serviceability</td>
</tr>
<tr>
<td>INTERNAL</td>
<td>Strength</td>
<td>600 900 1200 1500 2100 2400 2700 3000</td>
<td>Strength</td>
</tr>
<tr>
<td>Base metal thickness 0.48mm</td>
<td>Serviceability</td>
<td>600 900 1200 1500 2100 2400 2700 3000</td>
<td>Serviceability</td>
</tr>
<tr>
<td>SINGLE</td>
<td>Strength</td>
<td>600 900 1200 1500 2100 2400 2700 3000</td>
<td>Strength</td>
</tr>
<tr>
<td>END</td>
<td>Serviceability</td>
<td>600 900 1200 1500 2100 2400 2700 3000</td>
<td>Serviceability</td>
</tr>
<tr>
<td>INTERNAL</td>
<td>Strength</td>
<td>600 900 1200 1500 2100 2400 2700 3000</td>
<td>Strength</td>
</tr>
</tbody>
</table>

Limit states wind pressures
LYSAGHT TRIMDEK 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 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 4040.2:2002 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 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 1.0mm, G550 steel.

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

Walking on roofs
Generally, keep your weight evenly distributed over the soles of both feet to avoid concentrating your weight on either heels or toes. Always wear smooth soft-soled shoes; avoid ribbed soles that pick up and hold small stones, swarf and other objects.

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.

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.

Minimum roof pitch
Long lengths and a special anti-capillary groove in the side lap allows you to use LYSAGHT TRIMDEK on roof pitches as low as 2-degrees (1 in 30).

Simple, low-cost fixing
Long, straight lengths of LYSAGHT TRIMDEK can be lowered into place and aligned easily. Fixing with hexagon headed screws is simple and fast.

Masses

<table>
<thead>
<tr>
<th>Mass</th>
<th>BMT (mm)</th>
<th>kg/m</th>
<th>kg/m²</th>
<th>m²/t</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZINCALUME®</td>
<td>0.42</td>
<td>3.26</td>
<td>4.28</td>
<td>234</td>
</tr>
<tr>
<td>COLORBOND®</td>
<td>0.42</td>
<td>3.32</td>
<td>4.35</td>
<td>230</td>
</tr>
<tr>
<td>ZINCALUME®</td>
<td>0.48</td>
<td>3.70</td>
<td>4.86</td>
<td>206</td>
</tr>
<tr>
<td>COLORBOND®</td>
<td>0.48</td>
<td>3.76</td>
<td>4.93</td>
<td>203</td>
</tr>
</tbody>
</table>
**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.

**Safety, storage and handling**

Handling Safety - 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 of 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.

**Adverse conditions**

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

**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 1170.2:2011.

For information on the use of LYSAGHT products in cyclonic conditions, refer to the Design Capacities for Cyclonic Areas brochure (formerly Cyclonic Area Design Manual) which is available by ringing Steel Direct on 1800 641 417 or on our website: www.lysaght.com.

---

**Fasteners without Insulation**

<table>
<thead>
<tr>
<th></th>
<th>Fix to Steel Single &amp; lapped steel thickness</th>
<th>Fix to Steel Single thickness steel</th>
<th>Fix to Steel Total lapped thickness of</th>
<th>Fix to Timber Hardwood</th>
<th>Fix to Timber Softwood</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>≥2.0.55 up to 1.0mm BMT</td>
<td>≥1.0mm BMT up to 3.0mm BMT</td>
<td>≥1.0mm BMT up to 3.8mm BMT</td>
<td>J1-J3</td>
<td>J4</td>
</tr>
<tr>
<td>Crest Fixed</td>
<td>Roof Zips M6-11x50</td>
<td>12-14x45, Metal Tek’s HG, HH or</td>
<td>12-14x45, Metal Tek’s HG, HH or</td>
<td>12-11x65, Type 17 HG, HH</td>
<td>12-11x65, Type 17 HG, HH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Auto Tek’s M5.5-14x50</td>
<td>Auto Tek’s M5.5-14x50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pan</td>
<td>M5-16x25 Designer Head</td>
<td>10-16x16, Metal Tek’s HH or</td>
<td>10-12x16, Metal Tek’s HH</td>
<td>10-12x25, Type 17 HH</td>
<td>10-12x30, Type 17 HH</td>
</tr>
<tr>
<td>Fixed</td>
<td>Roof Zips M6-11x25</td>
<td></td>
<td>M5-16x25 Designer Head</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>12-11x25, Type 17 HH</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Side laps** (If required) 10-16x16, Metal Tek’s, HH or Roof Zips M6-11x25 or M5-16x25 Designer Head or Sealed blind rivet ø4.8mm aluminium

**Notes:**
1. For other steel thicknesses not specified please seek advice from screw manufacturer.
2. Values given are: gauge/threads per inch/ lengths (mm). HH = Hex Head, WH = Wafer Head, HG = Hi-Grip
3. Care is required during installation to prevent stripping of thin material. (Single ply.)
4. Screw specification as above or equivalent fastener.
5. All screws with EPDM sealing washer.
Installation

Fastening sheets to supports
TRIMDEK profile is pierce-fixed to timber or steel supports. This means that fastener screws pass through the sheeting.

You can place screws for LYSAGHT TRIMDEK through the crests or in the pans. To maximise watertightness, always place roof screws through the crests.

For walling, you may use either crest- or pan-fixing.
Always drive the screws perpendicular to the sheeting, and in the centre of the corrugation or rib. Don’t place fasteners less than 25mm from the ends of sheets.

Side-laps
The edge of TRIMDEK with the anti-capillary groove is always the underlap (see figures on this page). It is generally considered good practice to use fasteners along side-laps however, when cladding is supported as indicated in Maximum support spacings, side-lap fasteners are not usually needed for strength.

End lapping
End-laps are not usually necessary because TRIMDEK is available in long lengths.
If you want end-laps, seek advice from our information line on the sequence of laying and the amount of overlap.

Ends of sheets
It is usual to allow roof sheets to overlap into gutters by about 50mm. If the roof pitch is less than 25° or extreme weather is expected, the pans of sheets should be turned-down at lower ends, and turned-up at upper ends by about 80°.

Laying procedure
For maximum weather-tightness, start laying sheets from the end of the building that will be in the lee of the worst-anticipated or prevailing weather. Before lifting sheets on to the roof, check that they are the correct way up and the overlapping side is towards the edge of the roof from which installation will start. Also, it is much easier and safer to turn sheets on the ground than up on the roof.

Place bundles of sheets over or near firm supports, not at mid span of roof members.
Refer to the Lysaght Roofing & Walling Installation Manual for more detailed information on laying roof sheets.

Sheet-ends on low slopes
When TRIMDEK is laid on slopes of 5° degrees or less, cut back the corner of the under-sheet, at the downhill end of the sheet, to block capillary action.

Sheet coverage
| Width of Wall (m) | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 |
| Number of Sheets | 4 | 6 | 7 | 8 | 10 | 11 | 12 | 14 | 15 | 16 | 18 | 19 | 20 | 21 | 23 | 24 | 25 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 |
Product Descriptions
All descriptions, specifications, illustrations, drawings, data, dimensions and weights contained in this catalogue, all technical literature and websites containing information from LYSAGHT are approximations only.
They are intended by Lysaght to be a general description for information and identification purposes and do not create a sale by description. Lysaght reserves the right at any time to:
(a) supply Goods with such minor modifications from its drawings and specifications as it sees fit; and
(b) alter specifications shown in its promotional literature to reflect changes made after the date of such publication.

Disclaimer, warranties and limitation of liability
This publication is intended to be an aid for all trades and professionals involved with specifying and installing LYSAGHT products and not to be a substitute for professional judgement.
Terms and conditions of sale available at local Lysaght sales offices.
Except to the extent to which liability may not lawfully be excluded or limited, BlueScope Steel Limited will not be under or incur any liability to you for any direct or indirect loss or damage (including, without limitation, consequential loss or damage such as loss of profit or anticipated profit, loss of use, damage to goodwill and loss due to delay) however caused (including, without limitation, breach of contract, negligence and/or breach of statute), which you may suffer or incur in connection with this publication.
© Copyright BlueScope Steel Limited 3 December, 2013

www.lysaght.com
Technical enquiries: steeldirect@bluescopesteel.com or call 1800 641417
LYSAGHT® , COLORBOND® , THERMATECH® , ZINCALUME® and TRIMDEX® registered trademarks of BlueScope Steel Limited, ABN 16 000 031 058.
RoofZips®, AutoTeks®, Designer Heads® and Teks® are registered trademarks of ITW Buildex. The LYSAGHT® range of products is exclusively made by or for BlueScope Steel Limited trading as Lysaght. Digital Download 3/12/13