

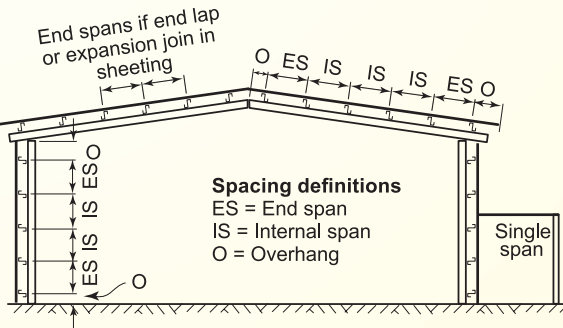
TRIMDEK® OPTIMA™ 1015: Limit state wind pressure capacities(KPa)

TRIMDEK ® OPTIMA ™ 0.42mm BMT												
Span Type	Fastener per sheet per support		600	900	1200	1500	1800	2100	2400	2700	3000	3300
Single	5	Serviceability Strength *	4.00 8.00	3.09 6.66	2.22 5.20	1.45 3.90	0.89 2.95	0.57 2.43	0.41 2.00	- -	- -	- -
End	5	Serviceability Strength *	3.40 5.11	2.90 4.66	2.44 4.17	2.00 3.73	1.60 3.32	1.24 2.89	0.94 2.44	0.65 2.01	0.40 1.77	- -
Internal	5	Serviceability Strength *	4.06 7.35	3.35 6.17	2.72 5.10	2.23 4.11	1.85 3.40	1.51 2.90	1.22 2.61	0.97 2.41	0.78 2.24	- -
TRIMDEK ® OPTIMA ™ 0.45mm BMT												
Span Type	Fastener per sheet per support		600	900	1200	1500	1800	2100	2400	2700	3000	3300
Single	5	Serviceability Strength *	4.48 8.79	3.54 7.88	2.44 6.34	1.55 4.94	0.91 3.83	0.58 3.06	0.41 2.51	- -	- -	
End	5	Serviceability Strength *	4.14 6.22	3.46 5.47	2.78 4.68	2.16 3.99	1.66 3.42	1.25 2.94	0.92 2.57	0.66 2.25	0.43 1.98	0.49 1.69
Internal	5	Serviceability Strength *	4.91 7.66	4.01 6.52	3.19 5.49	2.52 4.54	2.01 3.83	1.64 3.32	1.37 3.00	1.13 2.73	0.93 2.49	0.78 1.58

1) *A capacity reduction of Ø=0.9 has been applied to strength capacities. These capacities are based on tests conducted at BlueScope Steel’s NATA registered testing laboratory using direct pressure testing rig. Supports must not be less than 1mm BMT

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 AS1562.1-1992 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 de ection 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.



Metal & Timber Compatibility

Lead, copper, stainless steel and green or some chemically treated timbers are not compatible with this product; thus don't allow any contact of the product with these 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 your nearest BlueScope LYSAGHT office.

Maintenance

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

Storage and Handling

Keep the product dry and clear off 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: do not drag materials over rough surfaces or each other, carry tools, do not drag them and protect it 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

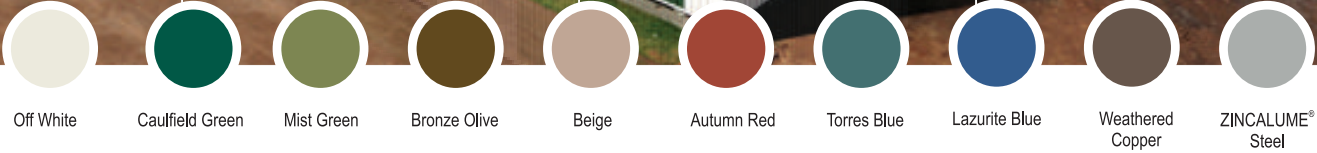
For sealed joints, use screws or rivets and neutral-cure silicone sealant branded as suitable for use with ZINCALUME® steel and COLORBOND® steel.

Note:
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Design Advantages

- Smart appearance with subtle square fluting
- Long spanning capacity allows sheets to be fixed with ease and accuracy
- The fluting in pans provides strength and long spanning capabilities
- Available in long lengths so one continuous sheet may be used from ridge to gutter or full wall lengths without end laps
- The strength, spanning ability lightness and rigidity of TRIMDEK® OPTIMA™ allows for wide support spacings to be used with safety
- TRIMDEK® OPTIMA™ is available in an attractive range of colours in COLORBOND® steel and ZINCALUME® steel

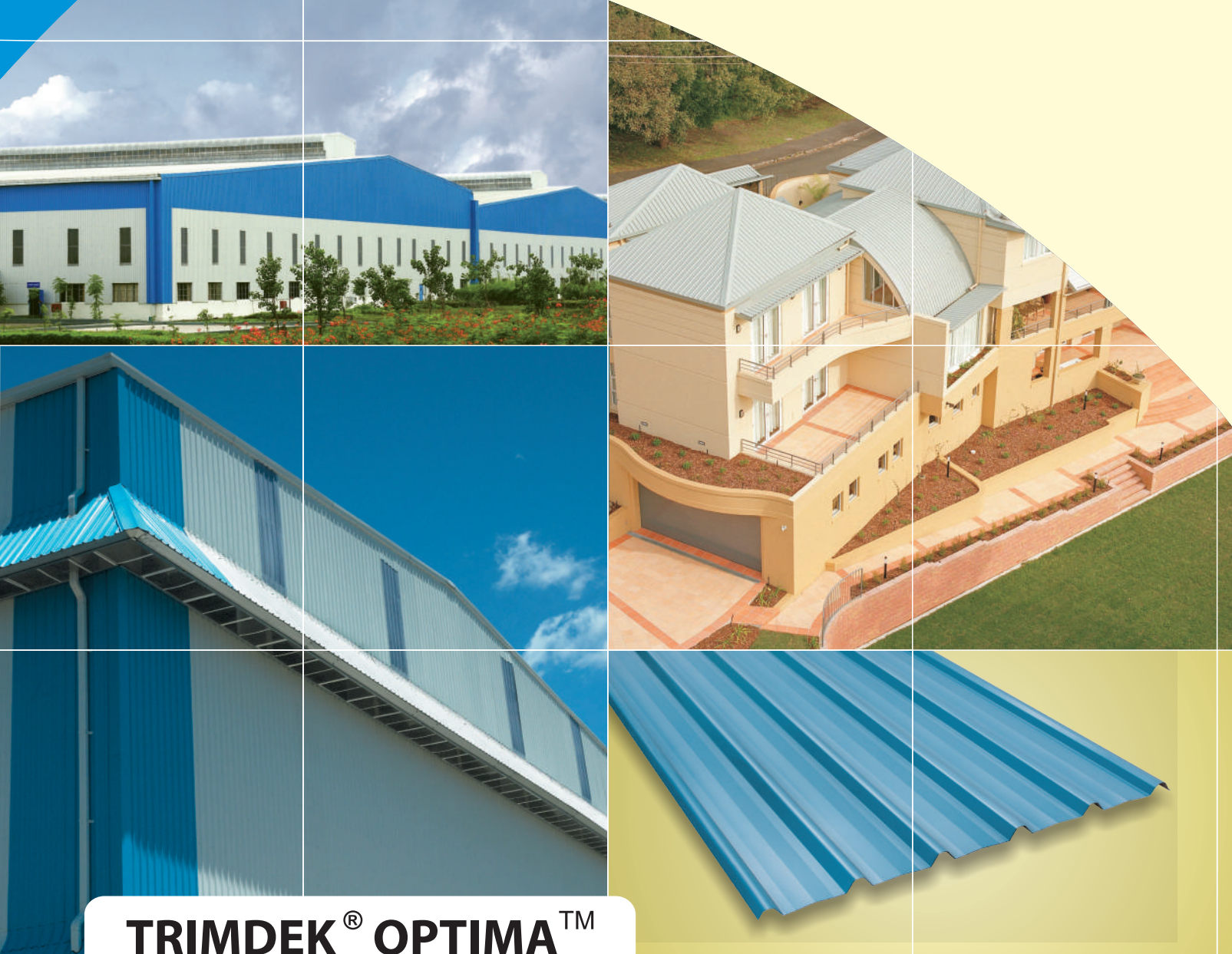
Available Colours



The above colours are only for illustrative purpose and actual colours may vary



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TRIMDEK® OPTIMA™





LYSAGHT TRIMDEK® OPTIMA™ is a subtle square fluted steel cladding available in long lengths, which can be used in Industrial, Infrastructure, Commercial and Residential projects.

Excellent Spanning Capabilities
TRIMDEK® OPTIMA™ is manufactured from high strength steel and provides excellent spanning capacity and remarkable recovery from deformation resulting in better design freedom.

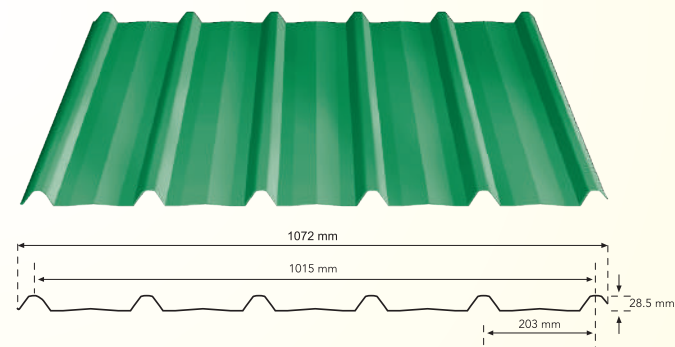
Simple, low-cost fixing
Long straight lengths of TRIMDEK® OPTIMA™ can be lowered into place and aligned easily. Fixing with hexagon headed screws is simple and fast.

Masses: TRIMDEK® OPTIMA™ Table 1				
BMT(mm)		kg/m	kg/m ²	m ² /t
0.42	ZINCALUME® steel	4.21	4.16	240
0.42	COLORBOND® steel	4.30	4.22	236
0.45	ZINCALUME® steel	4.50	4.43	225
0.45	COLORBOND® steel	4.57	4.50	221

Proven and Tested Profile
All LYSAGHT® profiles undergo various testing at our state of art R&D and testing centre, Australia. TRIMDEK® OPTIMA™ profile comes with return leg which provides extra support at the side laps of panels and assures weather tightness with specially engineered anti-capillary grooves. Troughed stiffeners in the valleys of profile prevents oil canning effect in larger spans, withstands better roof traffic and also clears rain water quickly with no stagnation of water. Due to its excellent features it can be designed even for low roof slopes.

Improved Thermal Performance
TRIMDEK® OPTIMA™ comes with COLORBOND® steel THERMATECH™ Solar Reflectance Technology that lowers surface temperature by absorbing lesser heat from the sun. It keeps both roofs & buildings cooler at reduced energy costs.

Profile
TRIMDEK® OPTIMA™ is a 1015 mm wide coverage profile with nominal 28.5 mm deep ribs along with subtle square fluting in the five pans at nominal 203 mm centre-to-centre. The end ribs are designed for anti-capillary action, to avoid seepage of water through the lateral overlap. The profile can be crimp curved to suit a curve radius of more than 500 mm.



Minium Roof Pitch
Long lengths and a special anti-capillary groove in the side lap allows you to use TRIMDEK® OPTIMA™ on roof pitches as low as 2 degrees (1 in 30)

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.

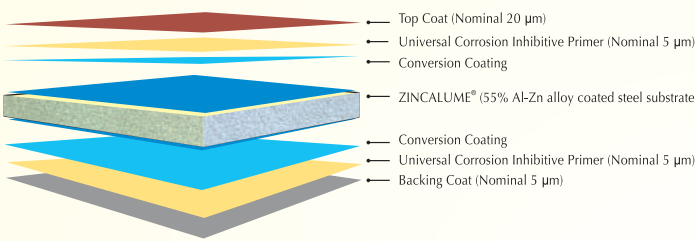
Whatever direction you walk, always walk in the pans. When walking across the width of the roof, walk over, or close to, the roof supports.

Adverse Conditions
If this product is to be used in marine, severe industrial or unusually corrosive environments, ask for advice from your nearest BlueScope LYSAGHT® office.

Non-Cyclonic Areas
The information in this brochure is suitable for use only in areas where a tropical cyclone is unlikely to occur. Ask for advice from your nearest BlueScope LYSAGHT® office on designs to be used in cyclonic areas.

Material Specification
TRIMDEK® OPTIMA™ is manufactured from COLORBOND® XRW steel, high tensile steel with minimum 550 MPa yield strength, metallic hot-dipped coated with Al-Zn alloy (55% Aluminium, 43.5% Zinc, 1.5% Si) as per AS1397/ IS15961 standards and ZINCALUME® AZ150 (min. 150 g/m2 total on both sides) with Super Durable Polyester COLORBOND® XRW steel* quality paint system of approved colour, suitable for exterior application conforming to AS/NZS 2728 type-4 / IS15965 class 3 of Tata BlueScope Steel make. The sheets have a total coating thickness of 35 microns, super durable polyester COLORBOND® XRW quality paint system of 20 microns on exposed surface and 5 micron reverse polyester coat on back surface and over 5 micron primer coat on both surfaces. The paint system is made of stable resin & inorganic pigments for paint durability and is lead free, making it suitable for rainwater harvesting. The steel sheets have a brand marking of the coated steel manufacturer (product details, date, mfg name, etc) on the back side at regular intervals confirming genuineness of the material. (Refer Table 1)

*Standard offering includes COLORBOND® XRW steel but other options like COLORBOND® Ultra steel, COLORBOND® XPD steel and COLORBOND® Metallic steel can also be used after consultation from Tata BlueScope Steel authorities.



Cross Sectional View of COLORBOND® steel

Maximum Support Spacing (in mm)
The maximum recommended support spacings are based on tests conducted in accordance with AS1562.1-1992, AS4040.1-1992 & 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 (in accordance with IS 875.3) is based on buildings up to 10m high, Zone 2 (Basic wind speed Vb = 47 m/s), Class A, Terrain category 3, K1 = 1.0, K2 = 0.91, K3 = 1.0, with the following assumptions made: (Refer Table 2)



Roofs
Cpe = -1.20 (internal cladding spans)
Cpe = -2.0 (single and end cladding spans)
Cpi = +0.2

Walls:
Cpe = -0.80 (internal cladding spans)
Cpe = -1.20 (single and end cladding spans)
Cpi = +0.2

Lengths
Sheet are supplied custom cut

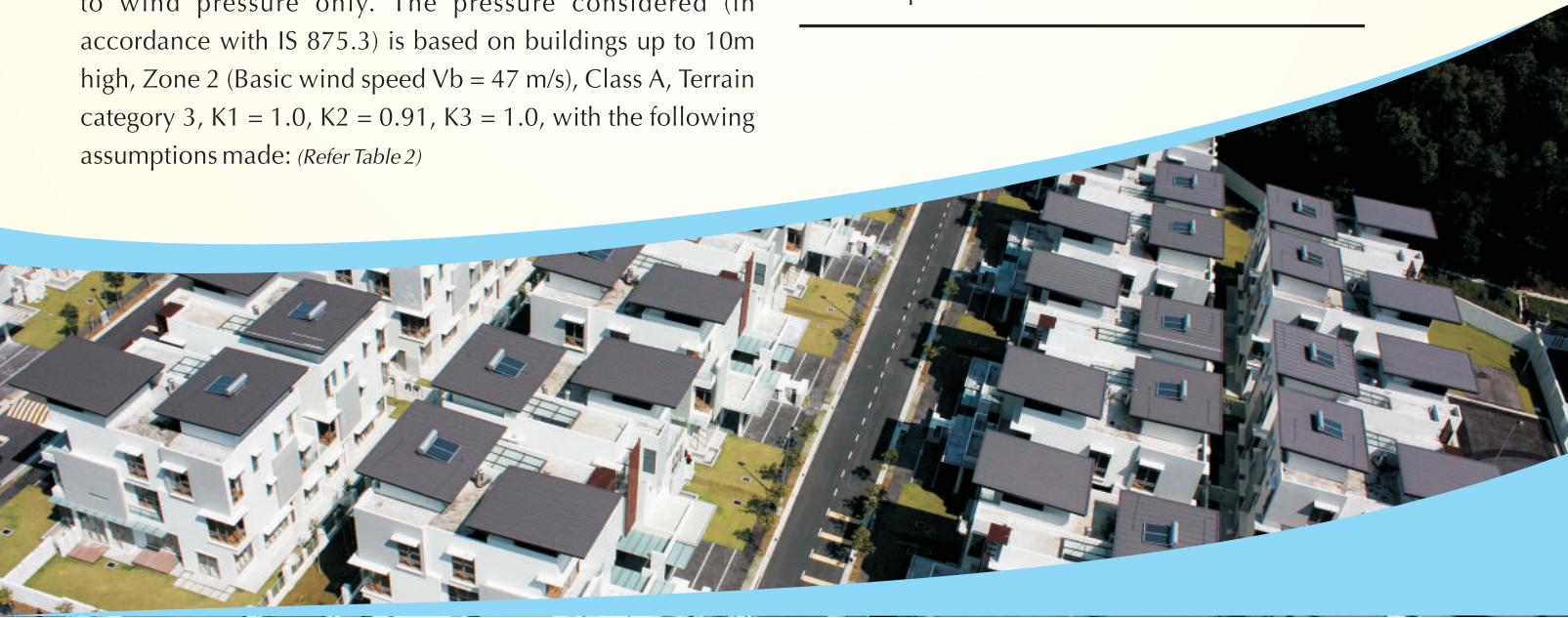
Tolerances
Length : +0mm , -15mm
Width : +4mm , -4mm

These spacings may vary for particular projects, depending on specific structure characteristics.

Maximum support spacings (mm) (Table 2)

Type of span	BMT	BMT
	0.42	0.45
Roofs		
Single span	900	950
End span	1100	1200
Internal span	1650	1750

Walls		
Single span	1450	1700
End span	2100	2450
Internal span	2500	2850



Installation

Fasteners without insulation			
	Fixing to steel up to 0.75 mm BMT	Fixing to steel > 0.75 to 3 mm BMT	Fixing to timber
Crest fixed	Roofzips® (M5.5-11x50) OR Self drilling screws with hex. washer-head, EPDM seal, Higrip & shank protection 12-11 x 50 (M5.5-11 x 50)	Roofzips® (M5.5-11x50) OR Self drilling screws with hex. washer-head, EPDM seal, Higrip & shank protection 12-14 x 45 (M5.5-14 x 45)	Roofzips® (M6-11x65) OR Type 17 Self drilling screws with hex. washer-head, EPDM seal, Higrip & shank protection SOFTWOOD: 12-11 x 65 (M5.5-11x65) HARDWOOD: 12-11 x 50 (M5.5-11x50)
Valley fixed	Self drilling screws with hex. washer-head & EPDM seal 10-12x20 (M4.8 - 12x20) OR Self drilling screws with hex. washer-head & EPDM seal 10-16x16 (M4.8-16x16)	Self drilling screws with hex. washer-head & EPDM seal 10-16x16 (M4.8 - 16x16)	Roofzips® (M6-11x65) OR Type 17 Self drilling screws with hex. washer-head & EPDM seal SOFTWOOD: 10-12 x 30 (M4.8-12x30) HARDWOOD: 10-12 x 20 (M4.8-12x30)
Side lap & accessories	Self drilling hex. head screws with washer and EPDM seal	10-16 x 16 OR EPDM seal: 8-15 x15	

Fasteners
TRIMDEK® OPTIMA™ requires 5 fasteners per sheet per support as shown below.

Roof - Screw fix through rib



Wall - Screw fix through pan



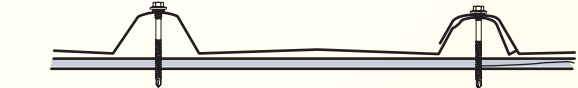
Fastening sheets to supports

TRIMDEK® OPTIMA™ is pierce-fixed to timber or steel supports. This means that fastener screws pass through the sheeting. You can place screws through the crests or in the pans. To maximise water tightness, always place roof screws through the crests. For walling, you may use either crest or valley fixing. Always drive the screws perpendicular to the sheeting and in the centre of the corrugation or rib. Don't place fasteners less than 25 mm from the ends of sheets.

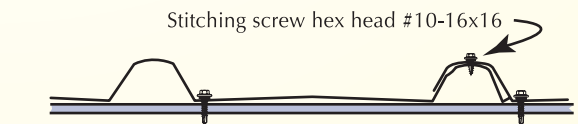
End Lapping
End-laps are not usually necessary because TRIMDEK® OPTIMA™ is available in long lengths. If you want end-laps, seek advice from your nearest BlueScope LYSAGHT® office on the sequence of laying and the amount of overlap.

Side-Laps
The side of TRIMDEK® OPTIMA™ with the anti-capillary groove is always the underlap. 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.

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

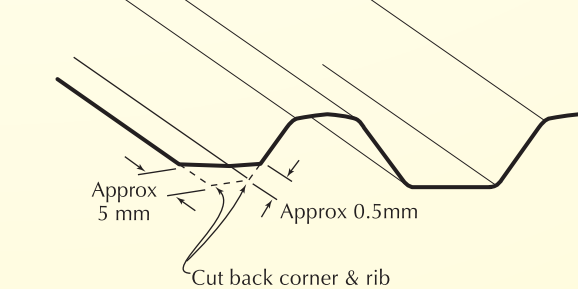


Crest fixing for roofs or walls



Pan fixing for walls only

Lay Sheets toward Prevailing Weather
It is much easier and safer to turn sheets on the ground than up on the roof. Before lifting sheets onto 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. Place bundles of sheets over or near firm supports, not at mid span of roof members. To align the first bullnosed sheet, use a level on the gutter-end.



Sheet-Ends on Low Slopes
When TRIMDEK® OPTIMA™ 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.