Eter6®

Eter14®

Eter

Best Practices of Installation

etex
inspiring ways of living

Best Practices of Installation

Handling & Storage

From installation process to in-service application, Eter roofing sheets shall be protected from humidity exposure (stored in closed area) to prevent efflorescence from occuring on the surface of the sheets.

Refer to distributor or follow recommendations as per technical data sheets for the maximum height of stacking.

Eter Corrugated Sheets

Figure a

Figure b

Lifting and carrying of the sheets to be done by two persons in longitudinal position as shown in Figure b.
Do not drag the sheets or attempt to lift it from the end, horizontally as in Figure a.

Storage

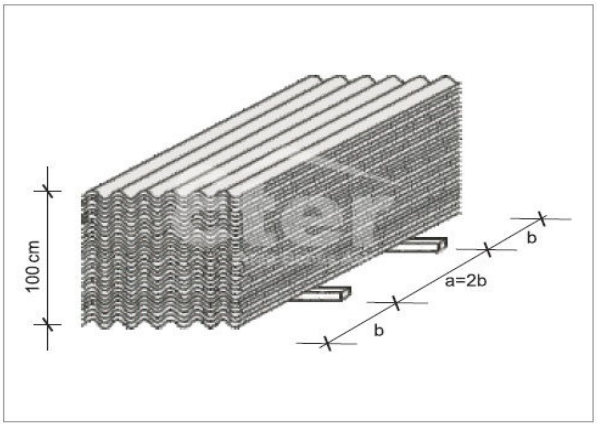
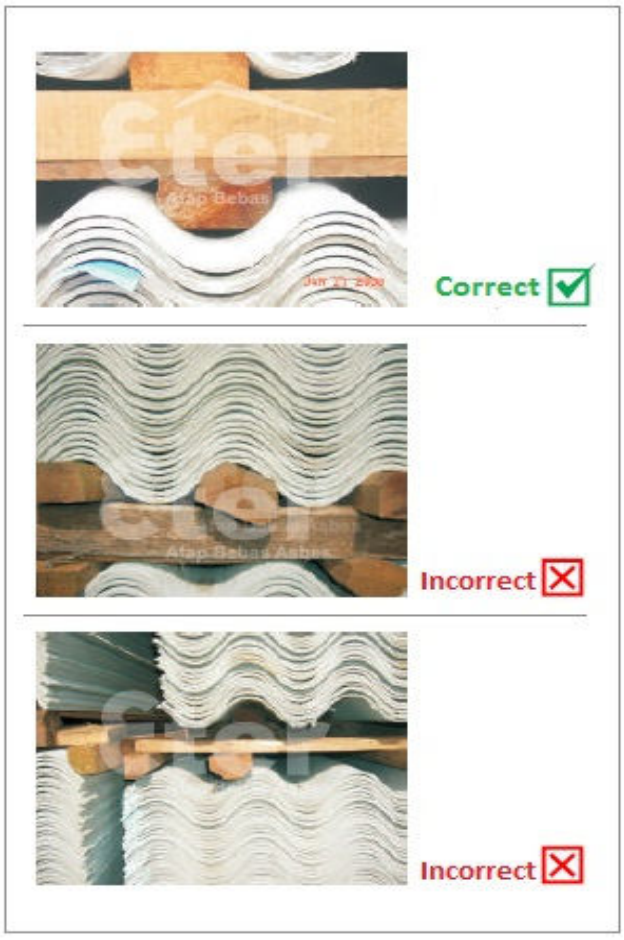


Figure c

Storage:
Sheets to be stored in dry and enclosed area.
Sheets to be placed on a flat surface.
For large volume storage, place the pallet supports in between every stack of 100 cm height with a maximum of 4 stacks (Figure c).



Figures above showing the correct and incorrect practice of stacking the sheets during storage (how the sheets should be placed on the pallet support).

Health & Safety and Assembly Guidelines

Health & Safety

Dusts may occur when handling quartz containing products such as concrete, clays and fiber cement during machining processes such as cutting, sanding and drilling. Inhaling air of high dust concentration may cause irritation to respiratory system, skin or eyes.

Working under high concentration of fine quartz dust which may penetrate the safety mask for long term period may affect the lung and thus, the following need to be observed;

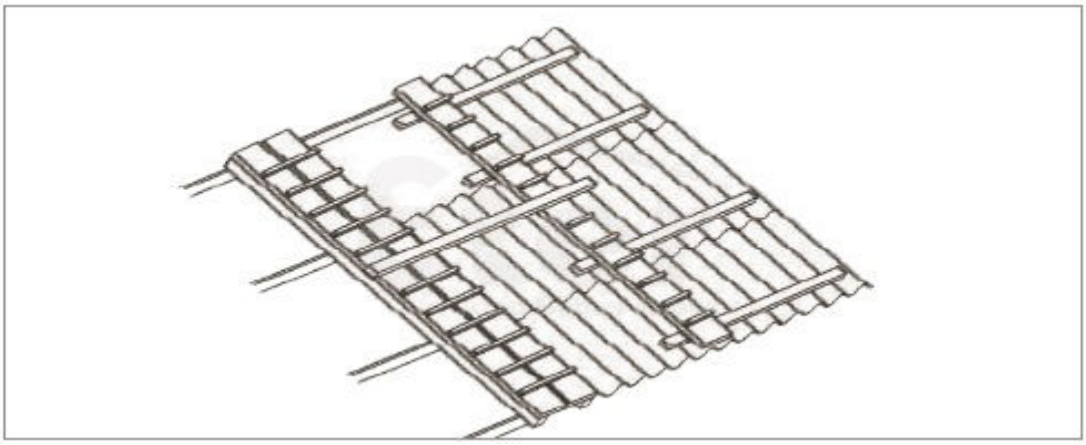
1. Avoid inhaling dusts by using cutting tools together with dust exhaust system.
2. Work in a well-ventilated area.
3. Avoid direct contact of dust with eye, skin and direct inhalation by wearing the appropriate Personal Protective Equipment (PPE).

The basic PPE as per the safety recommendations are safety helmet, mask, gloves and safety boots. Also, consider safety gears for working in height during installation.

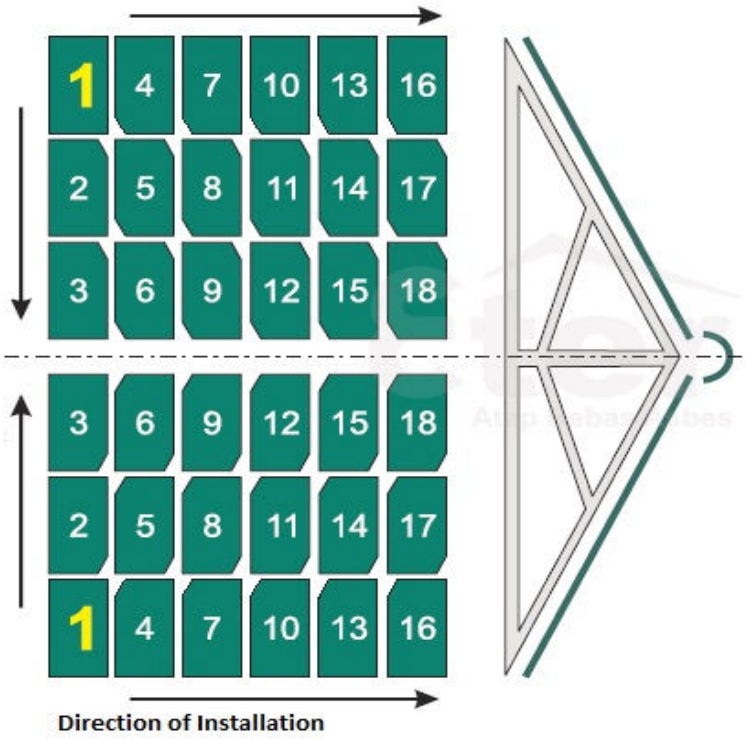
Product Assembly

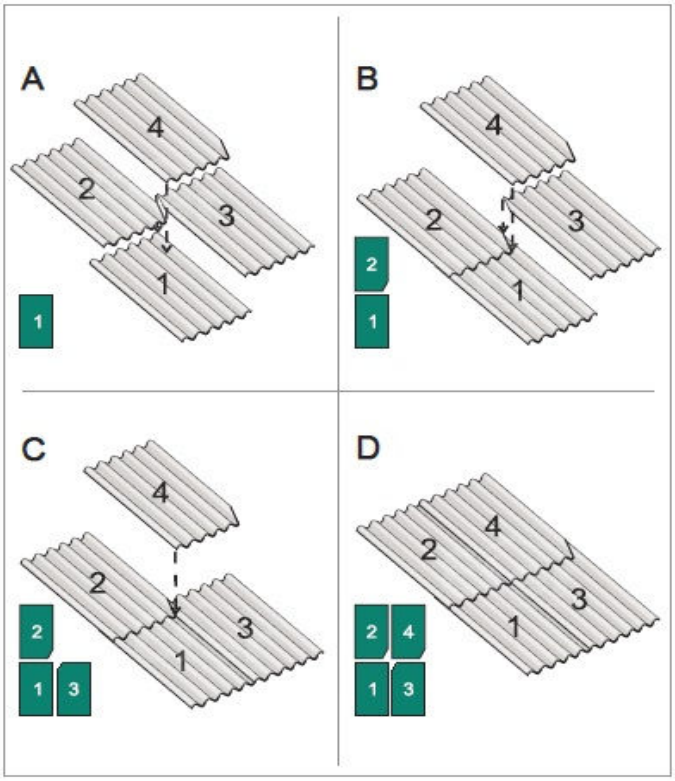
Installers are not allowed to step on the Eter product directly during installation or maintenance. Eter roof sheets are not designed to support the direct load of end user walking on top of it as this may lead to cracks and subsequently, accidents.

Use a layer of wood planks on top of the sheets as the cushion/ platform for mobility during installation stage as per figure shown below.



Sequence of Installation

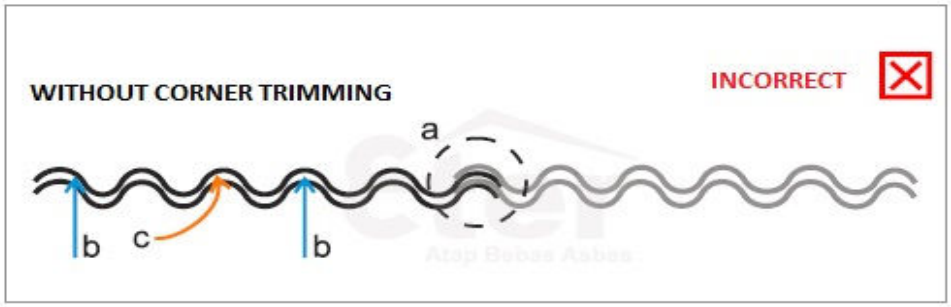




The size of trim at the edge is based on the end lapping distance (length) and the side lapping distance (width).

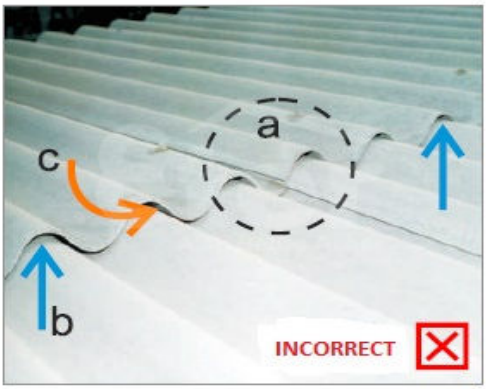
General Installation Guidelines

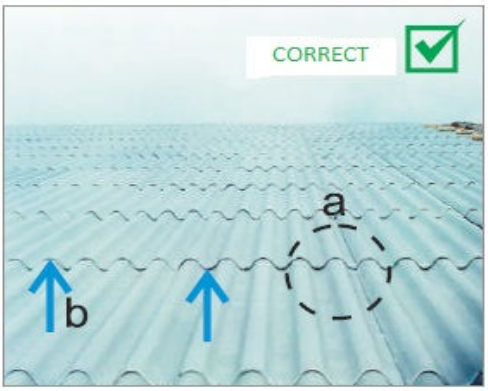
Corner Trimming

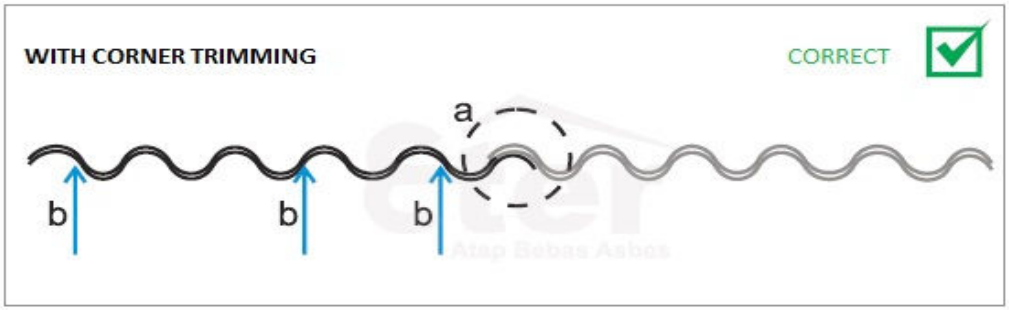


a. Stacking of waves for the four sheets at the corner.
b. No structural support in between waves of the sheets.
c. Large gaps between the wave of the sheets.

Due to the incorrect practice in installation:
- Structure breaks in time of installation or during in-service stage.
- Allows penetration of water through the gaps (poor water tightness).

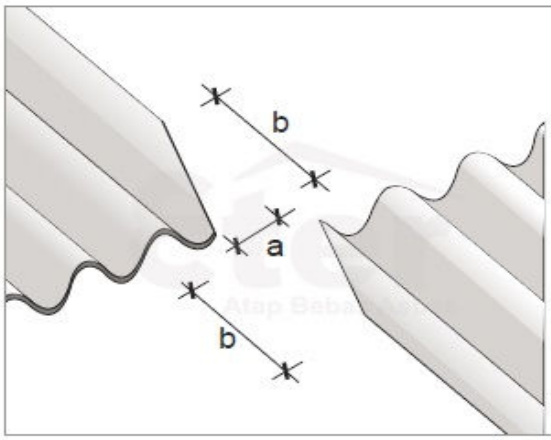






The benefits from correct practice in installation:
- There is no stacking of the four sheets at the corner.
- The sheets are structurally supported on one another.

Trimming Distance



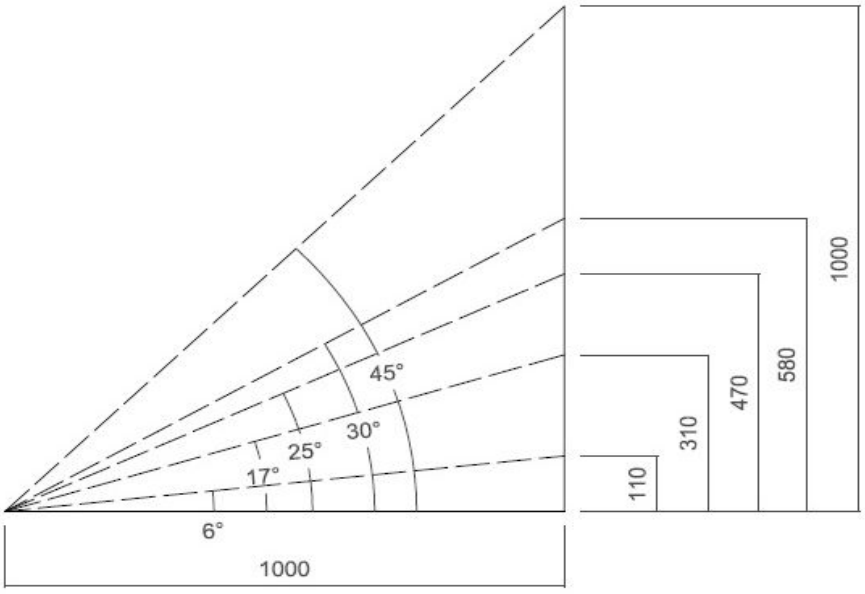
Corner trimming is depended on the lapping distance:
a. Side lapping (width)
b. End lapping (length)

Side lapping distance for the sheets are given as such:

1. Eter6 5" & Eter6 6" = 115 mm
2. Eter11 3.5" = 125 mm
3. Eter14 4" = 75 mm

The length of the end lapping distance is varying based on the pitch angle.

Roof Pitch (°)	Min 17	25	30	45	50	> 60
Percentage (%)	31.0	47.0	58.0	100.0	120.0	174.0
End Lapping (mm)	220	200	180	160	140	120

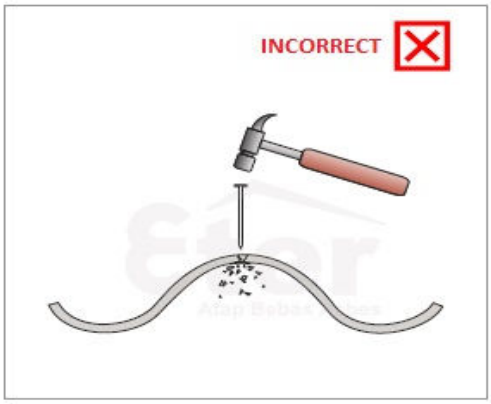


Length or Percentage based on 1000mm Horizontal Distance against Varying Roof Pitch angle

For flat roofing (pitch angle below 8°), consider the end lapping distance as 250mm and apply a strip of elastomeric sealant all along the overlap.

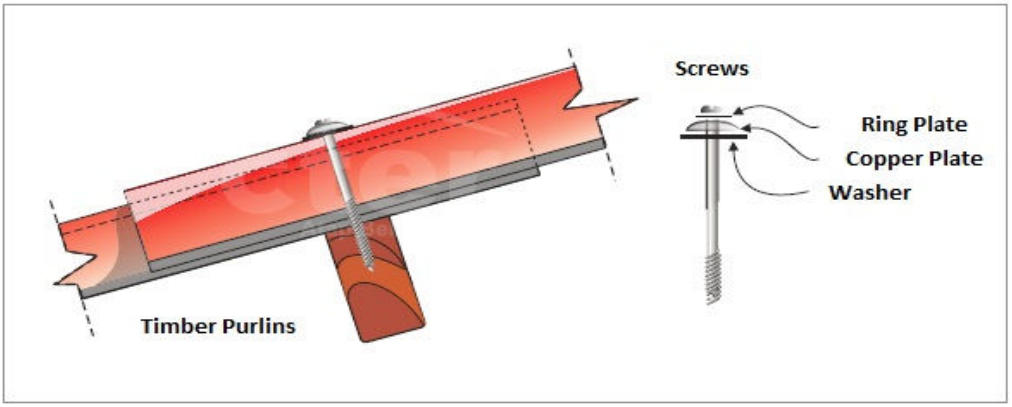
Fixing and Fasteners

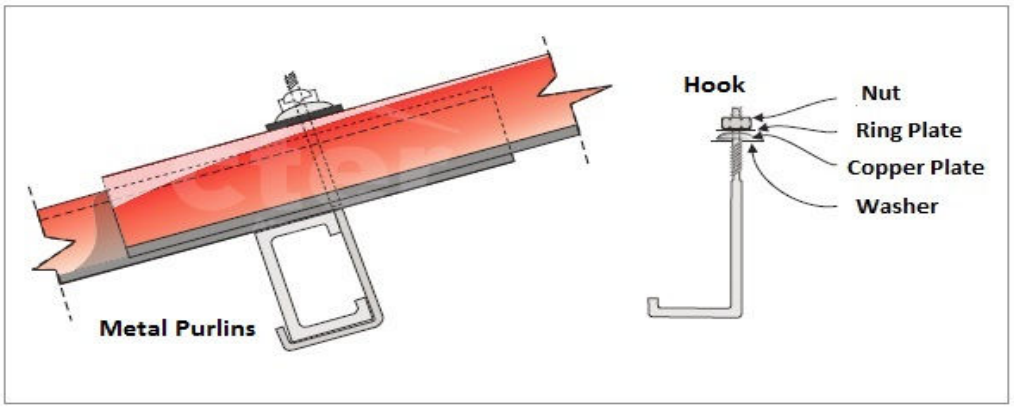
The fixing points on the Eter surface are recommended to be pre-drilled first with the the drill bit diameter of 2mm larger than the diameter of the screws.
Direct nailing to the surface of the product is strictly prohibited as this will result in cracks surrounding the fixing holes and underneath the sheets which will allow water to seep through.



Type of Connections

There are two types of connections in installation of Eter products i.e the use of timber purlins and metal purlins.





Kindly follow all the guidelines and correct practice of installation as recommended such as purlins spacing, screw fixing distance and etc to avoid defects or failures due to poor and incorrect practice of installation.

Installation Guidelines for Eter 6

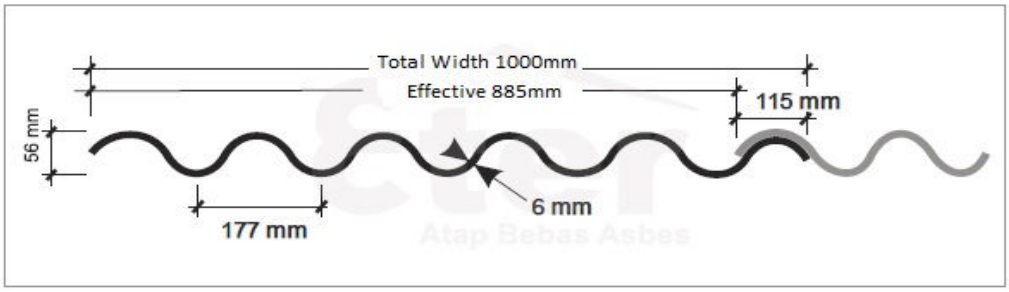
Eter6 5® & Eter6 6®

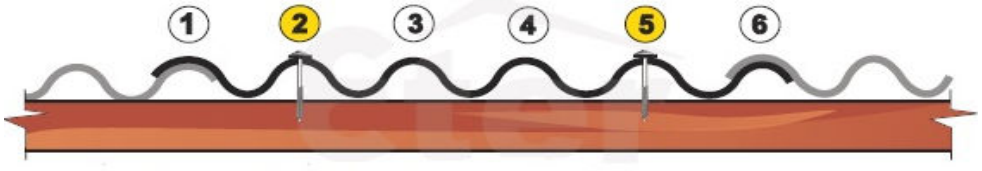
Standard Dimensions

Product Reference	Thickness (mm)	Width (mm)	Length (mm)	Weight (kg)
Eter6 6®	6	1000	3650	44
Eter6 5® & Eter6 6®	5 & 6	1000	3050	30.5 & 36.5
Eter6 5® & Eter6 6®	5 & 6	1000	2500	25.0 & 30.0
Eter6 5® & Eter6 6®	5 & 6	1000	2250	22.5 & 27.0
Eter6 5® & Eter6 6®	5 & 6	1000	2000	20.0 & 24.0
Eter6 5® & Eter6 6®	5 & 6	1000	1800	18.0 & 21.5
Eter6 5® & Eter6 6®	5 & 6	1000	1500	15.0 &18.0

Eter 6 comes with 6 waves and available in two different thicknesses, 5.0mm and 6.0mm. Due to its higher valley height, it gives stronger mechanical properties than the other Eter products.

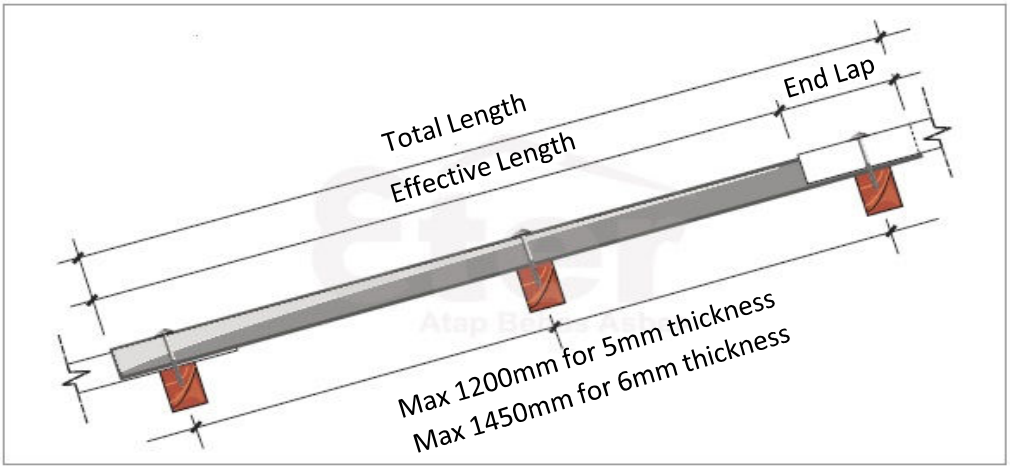
Recommended Assembly





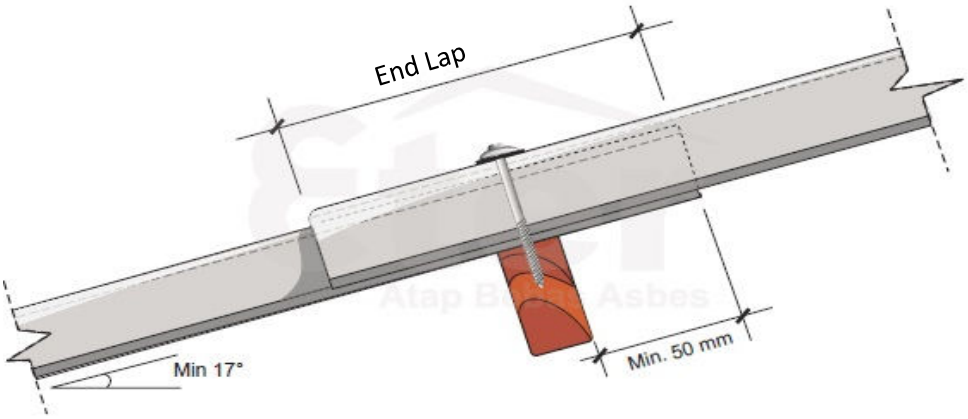
Screw position:
Fix the screws at the 2nd and 5th wave of the Eter 6.

Purlins Spacing



The structural support (purlins) is available in timber or metal.
Maximum spacing between purlins are given as;
1200mm for 5 mm thickness of Eter 6 and as 1450mm for 6mm thickness of Eter 6.
The actual purlin spacing is depended on the product length purchased and its corresponding end lapping value based on the roof pitch.

Roof Pitch and End Lap



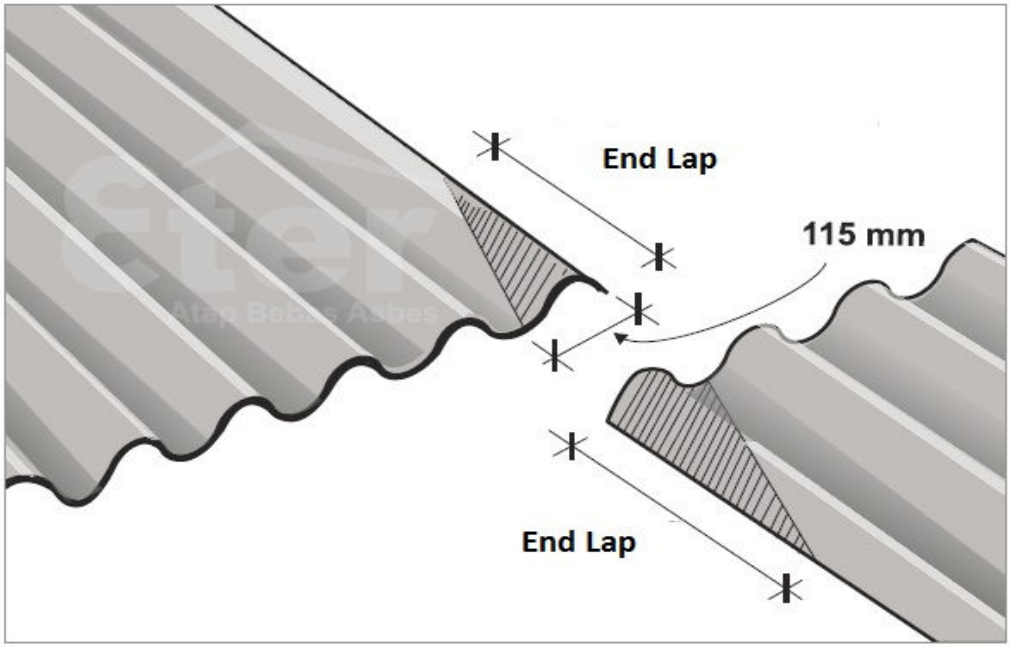
Recommended roof pitch is of a minimum of 17^{o} , this pitch shall determine the length of end lapping required. Refer Table below.

Roof Pitch (^{o})	Min 17	25	30	45	50	> 60
Percentage (%)	31.0	47.0	58.0	100.0	120.0	174.0
End Lapping (mm)	220	200	180	160	140	120

For flat roofing (pitch angle below 8^{o}), consider the end lapping distance as 250mm and apply a strip of elastomeric sealant all along the overlap.

Corner Trim

To avoid four times thick stacking at the corner during the roofing laying, corner trimming is required. For Eter 6, the side lap trim length is 115mm (see Figure below) while the end lap trim length is based on the roof pitch.



Installation Guidelines for Eter 14

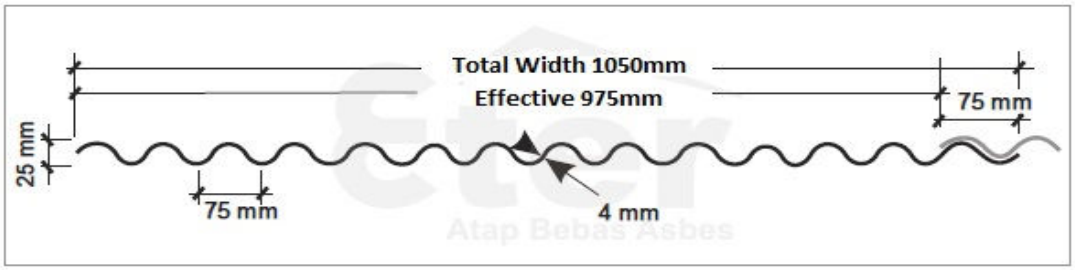
Eter14 4®

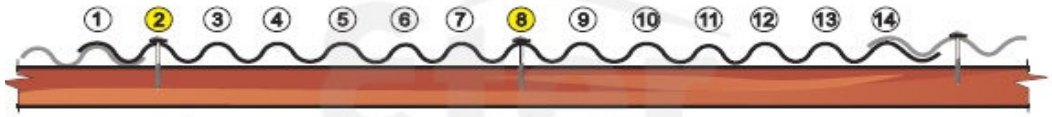
Standard Dimensions

Product Reference	Thickness (mm)	Width (mm)	Length (mm)	Weight (kg)
Eter14 4®	4	1050	3000	24
	4	1050	2700	21.5
	4	1050	2400	19
	4	1050	2100	17
	4	1050	1800	14.5
	4	1050	1500	12

Eter 14 comes with 14 waves and available in 4.0mm thickness.

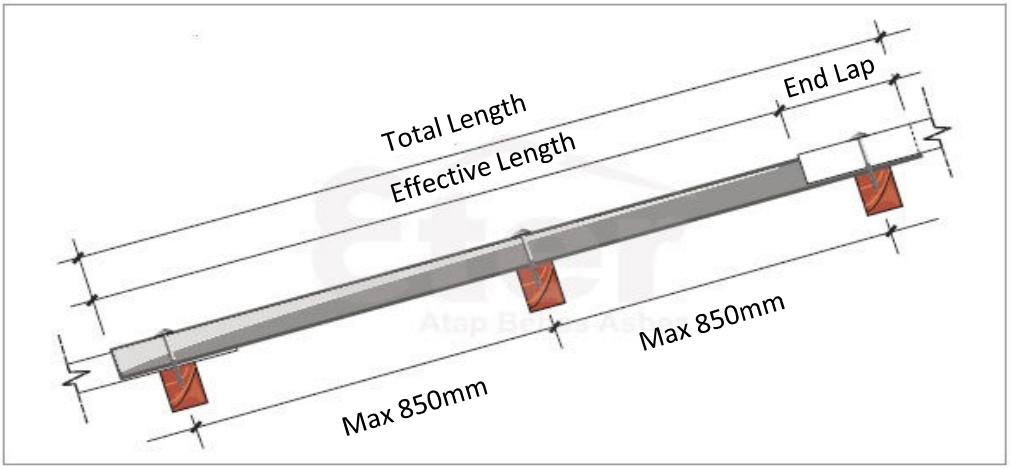
Recommended Assembly





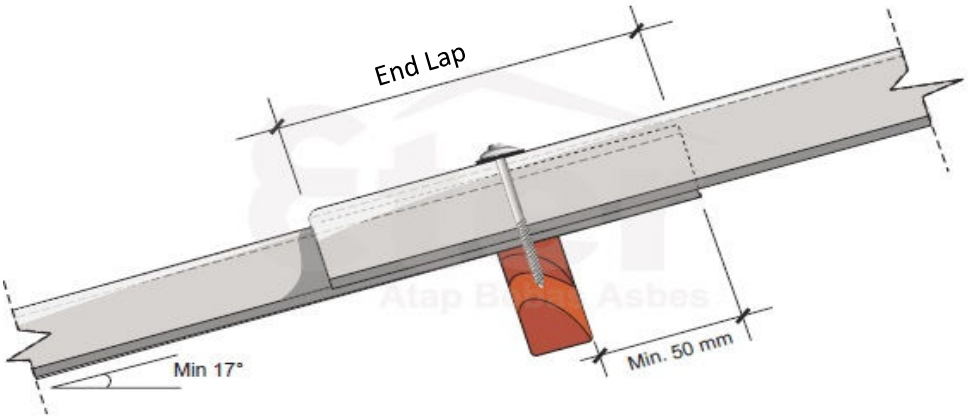
Screw position:
Fix the screws at the 2nd and 8th wave of the Eter 14.

Purlins Spacing



The structural support (purlins) is available in timber or metal.
Maximum spacing between purlins are given as;
850mm for 4 mm thickness of Eter 14.
The actual purlin spacing is depended on the product length purchased and its corresponding end lapping value based on the roof pitch.

Roof Pitch and End Lap



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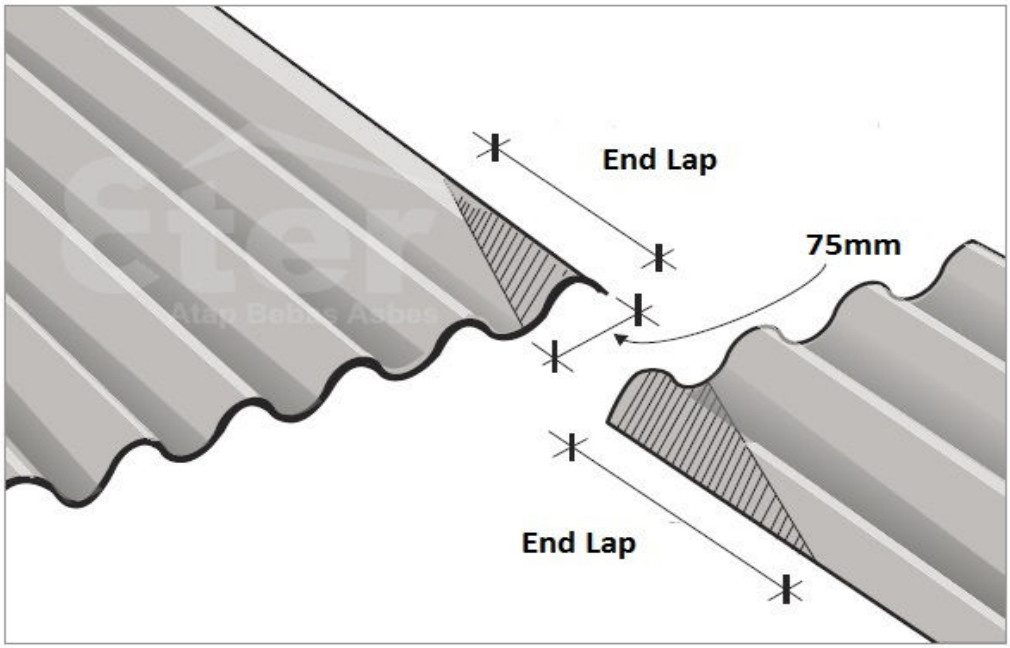
Roof Pitch (^{o})	Min 17	25	30	45	50	> 60
Percentage (%)	31.0	47.0	58.0	100.0	120.0	174.0
End Lapping (mm)	220	200	180	160	140	120

For flat roofing (pitch angle below 8^{o}), consider the end lapping distance as 250mm and apply a strip of elastomeric sealant all along the overlap.

Corner Trim

To avoid four times thick stacking at the corner during the roofing laying, corner trimming is required. For Eter 14, the side lap trim length is 75mm (see Figure below) while the end lap trim length is based on the roof pitch.



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