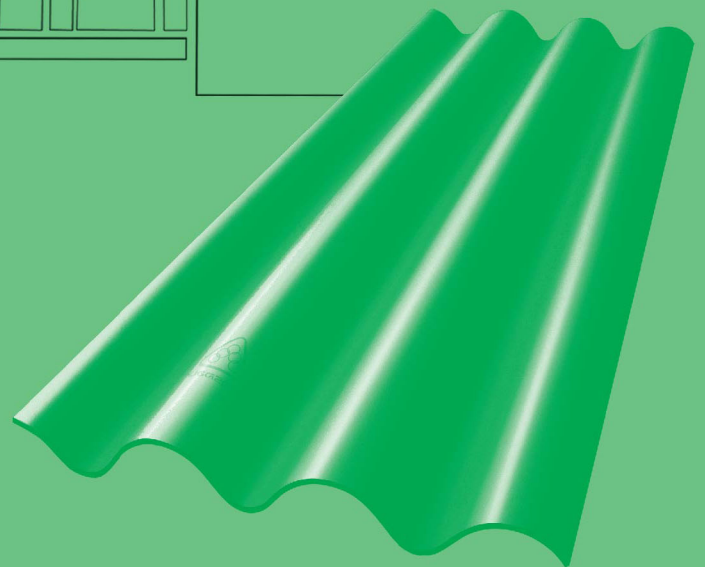
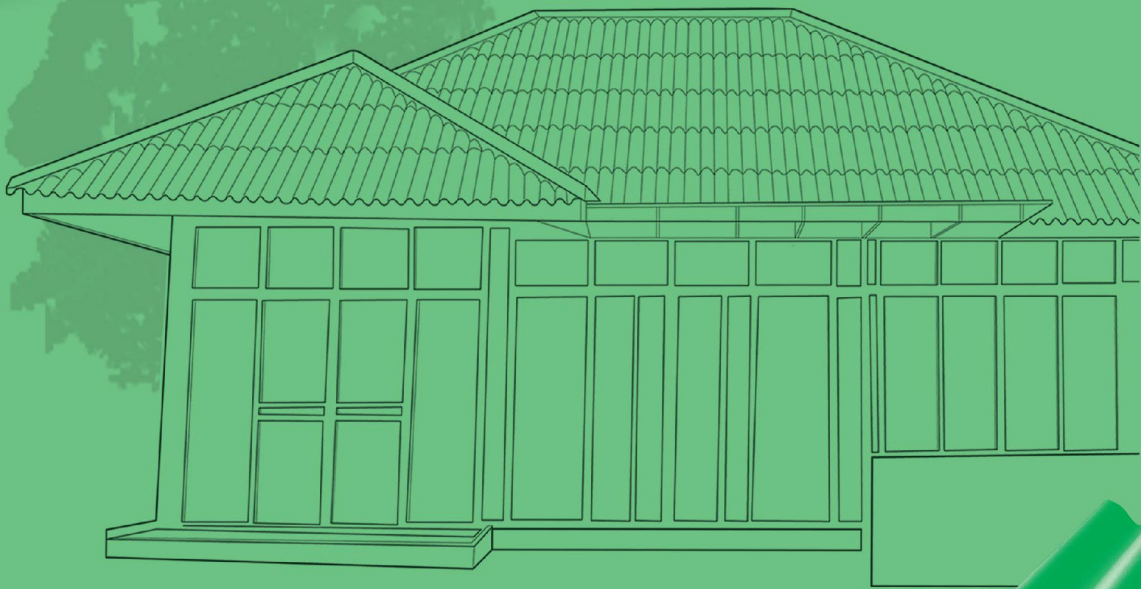


build better, live better

SHERATM APPLICATION
SOLUTIONS

TRILON INSTALLATION MANUAL

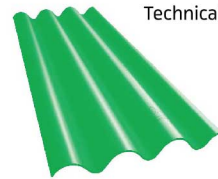
Green Product
Non Asbestos



TRILON

Trilon roof tiles are non asbestos, an international innovation that is minimize health risks and is safe to use. In addition, Trilon roof tiles are more cohensive and able to resist impact of hail by more than 3 times compared to asbestos formula.

1 Trilon Roof Tiles Specification



Technical Data

Product Specification

Length	Metric	60 cm	120 cm	150 cm
	Imperial	1.97 ft	3.94 ft	4.92 ft
Unit Weight			6.5 kg/pc	8 kg/pc
Width		50 kg		
Thickness		0.5 cm		
Usage		4.4 pcs/sqm	2.2 pcs/sqm	1.7 pcs/sqm
Weight		14.0 kg/sqm		

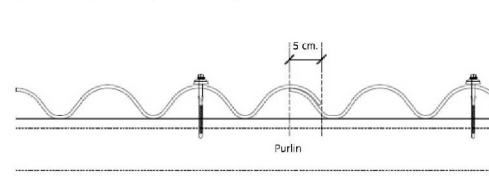
2 Installation Specification

Table 1

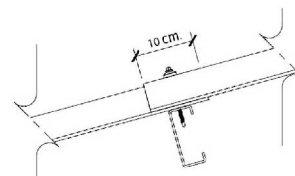
Length	Size 60 cm		Size 120 cm	Size 150 cm
Pitch Slop	10-25 degree	25 degree	10-40 degree	10-40 degree
Usage / SQM	5.55	4.55	2.22	2.22
Vertical Overlapping	20	10	20	20
Lateral Overlapping	5	5	5	5
Purlin Spacing	40	50	100	100
Fixing Device	Color screw Trilon	Color screw Trilon	Color screw Trilon	Color screw Trilon

* Recommend to use roof tile length 150 cm for the 1st row

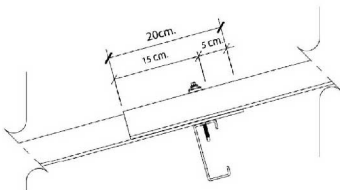
Picture 1-4 : This is a guideline to design and select the property Trilon roof tile due to housing design, pitch slope and preventing the wind and rain direction.



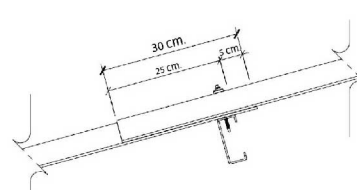
Picture 1 : Lateral overlapping 5 cm.



Picture 2 : Vertical overlapping 10cm



Picture 3 : Vertical overlapping 20 cm.



Picture 4 : Vertical overlapping 30 cm.

3 Fixing Device for Trilon Roof Tiles

Recommend 2 Types of crew for Trilon Tiles Installation

Type 1 : 4 inches Trilon color screws

- Available in all tile colors
- Apply for all to both metal and wood purlin
- Screw all self driven, no need to pre drill a hole

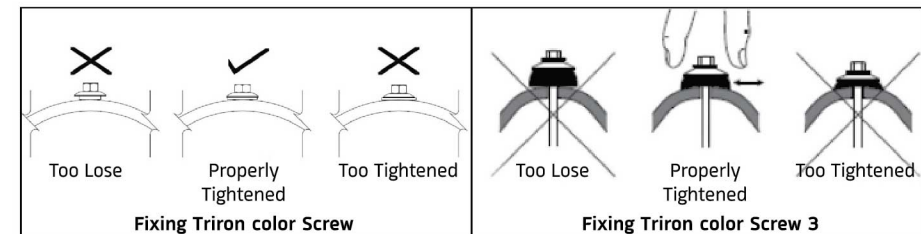
Type 2 : SHERA screw with rubber head

- Corrosion resistant
- Better protection to water leakage
- Applicable to metal structure
- Recommend to apply to pitch slop less than 10

Type 3 : 5/16" Hexagon head bolt

- To nail a Trilon color screw need 5/16" hexagon bolt
- Drill speed should be in the range from 2000-25000 PPM and drill's power should be over 400 watts

Make sure that Trilon color screws are properly tightened, not too tight and not too loose

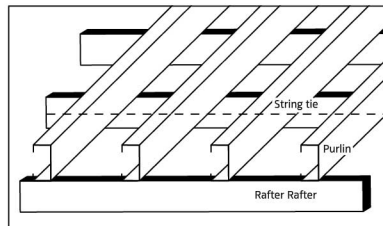


Remark :

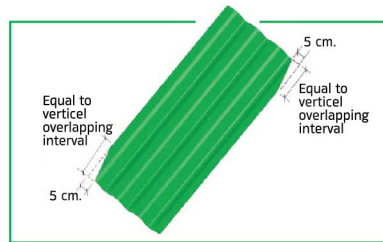
- * For house that locate in area that have wind load 2.5 NM/SQM, recommend to fixing Trilon color screw 2 points per sheet,
- ** for more information, please contact technical service

Tips for Trilon Roof Tiles Installation

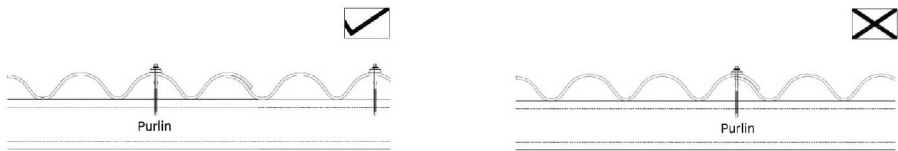
1. Make sure all purlin must be level, check alignment in all directions by using a string tie.



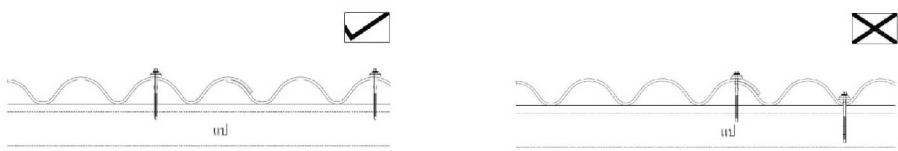
2. Cutting tile's corner is necessary and easy if use griding machine
Remark : Trilon 120 cm, 150 cm
Vertical overlapping 20 cm.



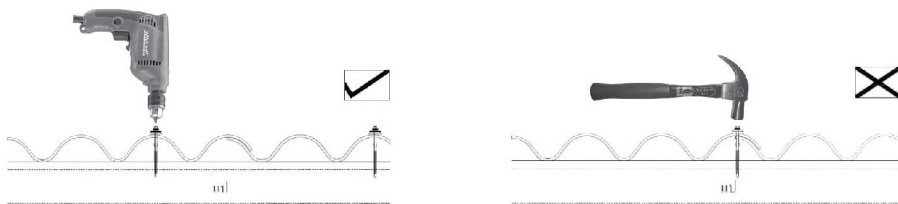
3. Recommend to use hand drill to fix screw with roof tiles, should not nail with hammer.



Avoid fixing screw in the overlapping area

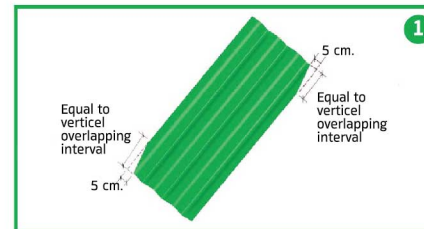


Fixing screw in the middle of roof tile

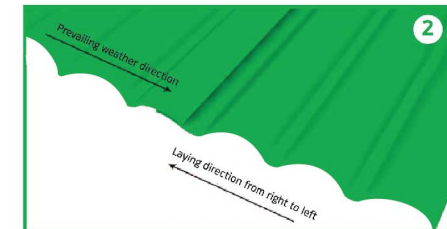


Recommend to use electrical drill only for fixing screw

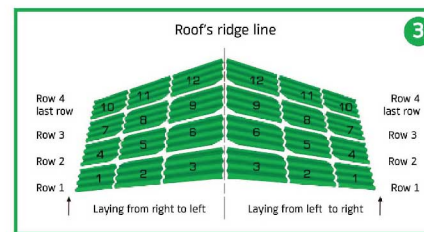
How to cut tile's corners and imbricate the roof tiles



Before cutting tile corners, it is necessary to indicate the overlapping interval as well as whether the tiling is from left to right or vice versa. Tile's corners are cut off to reduce the thickness which results from imbrications thus making for beautiful roof.

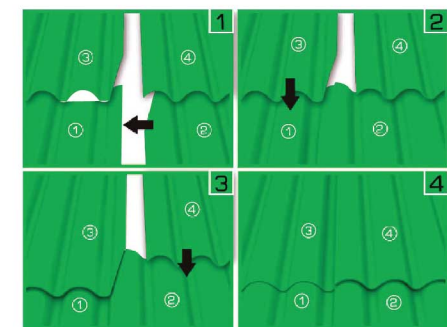


Whether to lay tiles from left to right or right to left depends on rain and wind direction. Tiles must be laid downwind or against the direction of the prevailing weather so that side laps are sheltered from rain.



Laying from right to left
Row1 Sheet#1 : do not cut; sheet#2 and #3 cut off the bottom left corner.
Row2,3 Sheet#4, #7 : cut off the top-right corners; sheet #5,#6,#8,#9 : cut both the top right and bottom left corner.
Row 4 : sheet #10,#11,#12 : cut off the top right corner.

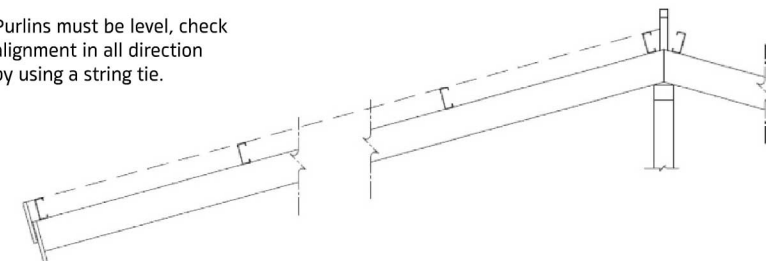
Laying from left to right
Row1 Sheet#1 : do not micer ;sheet#2 and #3 cut off the bottom right corner.
Row2,3 Sheet#4,#7 : cut off the top-right corners;sheet #5,#6,#8,#9 : cut both the top right and bottom left corner.
Row 4 : Sheet #10,#11,#12 : cut off the top right corner.



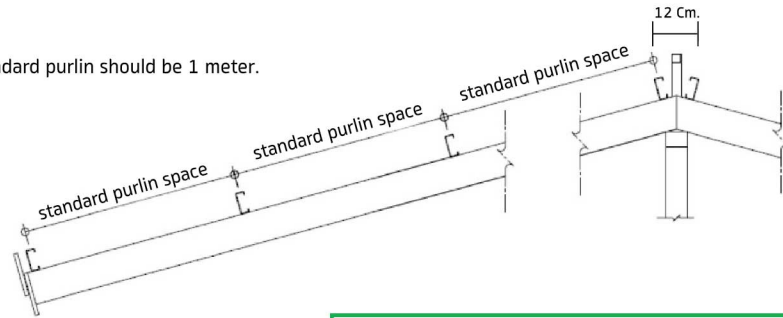
Imbrications steps
 1. Apply sheet#2, overlapping sheet #1
 2. Then lay sheet #3, overlapping sheets #1 and #2
 3. Apply the last sheet #4 on top of sheets #1,#2 and #3 forming close imbrications.

4. Preparation of Roof Structure

1. Purlins must be level, check alignment in all direction by using a string tie.

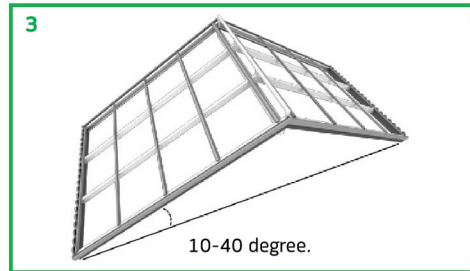


2. The standard purlin should be 1 meter.



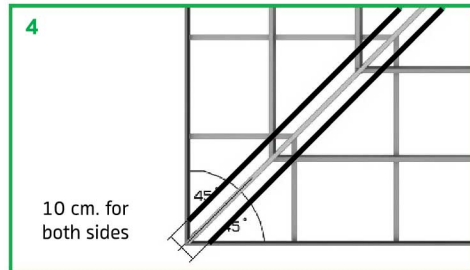
3. Pitch slope must be related with the length of roof tile.

The roof truss needs to have a slope of 10-40 degree. All rafters and purlin must not bend. Roof gable and eave have to be in right angles.

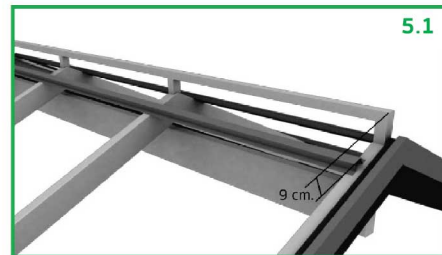


4. Hip structure must be aligned at 45 degree.

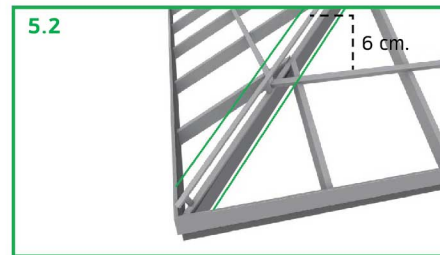
Install the support beam in both side of hip beam which be beside from center line 10 cm., same level as purlin.



5. Installation of the dummy ridge and hip beam



Install the dummy ridge beam size 1.1/2"x1.1/2" to support the round ridge. The top of the dummy ridge beam has to be 9 cm. higher than the surface of the purlin in all roof angles



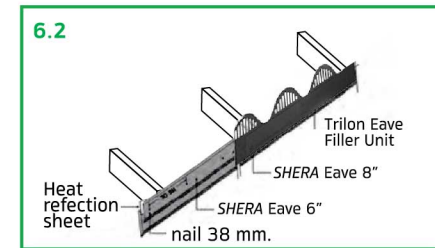
Install the dummy hip beam size 1.1/2"x1.1/2" to support the hip ridge, The back of the dummy hip beam has to be 6 cm. higher than the surface of the purlin in all roof angles

6. The method to install SHERA Eaves for Trilon Roof Tiles and Trilon Eave Filler



6.1 SHERA eave filler unit for Trilon roof tile installation

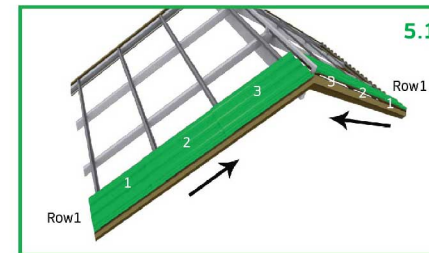
Place the SHERA eave filler unit after laying the Trilon roof tile is completely. Then fix SHERA eave filler unit on the top of 20 cm(8") SHERA eave which was installed already. The eave filler unit wave should be enclosed to the corrugation of Trilon roof tile. Fix the SHERA screw FIX T at 30 cm. intervals.



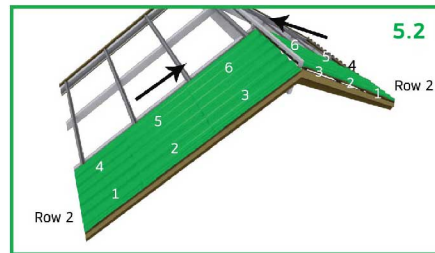
6.2 Trilon Eave Filler Unit installation

Install 15 cm (6") SHERA eave width, after that fix Trilon eave filler unit on the top of SHERA eave, use SHERA screw fix for fixing.

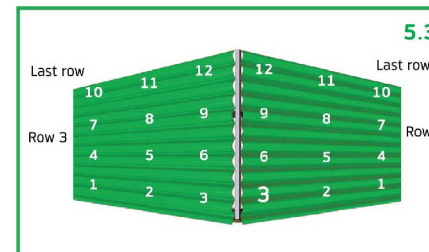
5. Installation of Trilon on Gable Roof



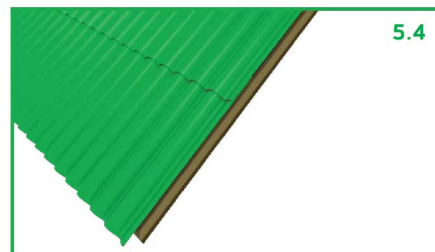
In tilling, it is advised to put down the entire first row, starting from the eaves to the end of the roof ridge and fix the tiles with Trilon color screws. Make sure that the trough and crests of tiles corrugation on both sides are in line with one another



Next, with second row, follow the same procedure starting from the eaves to the ridge



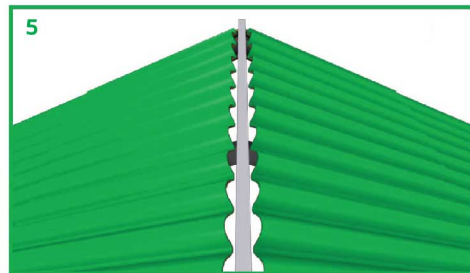
Tiles the rest rows-third and fourth sequentially as marked until the roof is all covered with tiles.



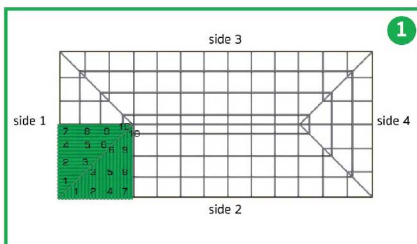
In the first course, tiles corrugation must be upturned and aligned with the toothed lath.

The tiles on both sides must be close to each other as possible, with troughs and crest of corrugation in the same lines and level to enable the finishing touch for the ridge

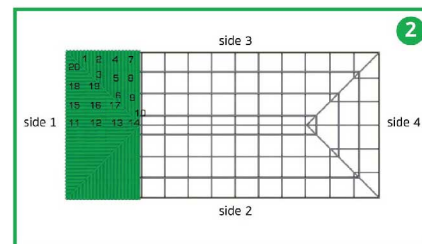
Remark : There are 2 possible ways in roofing with Trilon tiles : from right to left or from left to right depending on the prevailing weather in each area



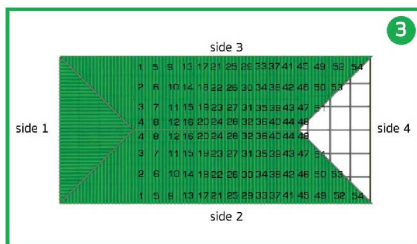
6. Installation of trilon Tiles on Hip Roof



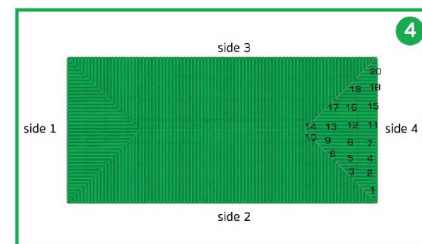
Start with the hip rafter, from eaves to ridges on both sides. Fix the tiles with Trilon color screws. Make sure that tile corrugation are in line with one another, sequentially as marked. Try placing the hip ridge during this process.



After the hip rafter is fully covered, apply the sheets to the rest of side #1, Next continue with the hip rafter side#3, Starts from the eaves sequentially as marked. Also try placing the hip ridge simultaneously.



Tile the 2nd and 3rd sides starting from eaves to round ridges on both sides sequentially as marked.



Then tile the 4th - and last side starting from one hip rafter to the other. Make sure that tile corrugations on both sides are in line with each other.

The Installation of roof accessories and systems

1. Single Piece Ridge
: For pitch slope 10-40 degree, Gable roof
: For pitch slope 30-35 degree, Hip roof



1. Round Ridge
Size : 27.5x51.5x16.5 cm
Weight : 2 kg/pc
Usage : 2.3 pc/m



2. Hip Ridge
size : 27.5x52x15.5 cm
Weight : 2 kg/pc
Usage : 2.3 pc/m

2. Dry Tech Ridge System
: For all pitch roofing slope



1. Round Hip Ridge
Size : 25.5x45x10.5 cm
Weight : 1.6 kg/pc
Usage : 2.7 pc/m

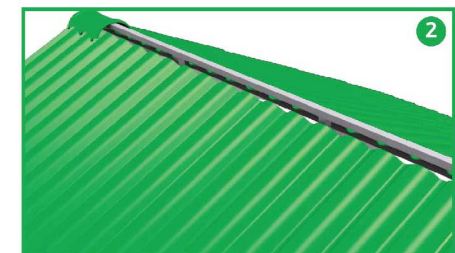


2. Trilon Dry Tech
size : 0.35x3 M.
Weight : 1.95 kg/roll
Usage : 2.8 M/roll

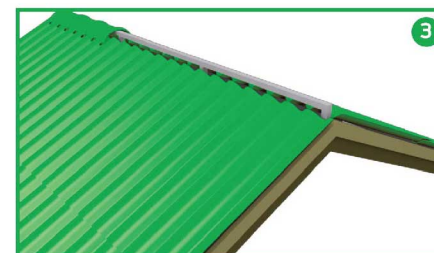
8. Single Piece Ridge System Installation



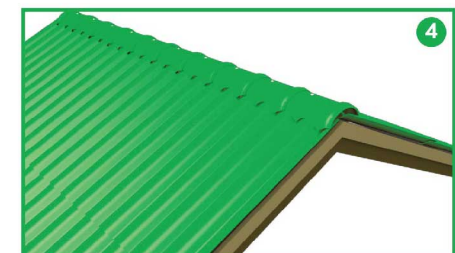
Install the dummy ridge beam size 1.1/2"x1.1/2" to support the round ridge. The top of the dummy ridge beam has to be 9 cm. higher than the surface of the purlin in all roof angles.



Put down the first round ridge by starting from either side of the roof and aligning it with the toothed lath. Nail it with Trilon color screw to the dummy ridge beam at the middle of the roof ridge.

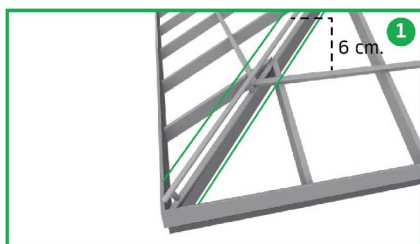


Then put down the next round ridges in a straight line.

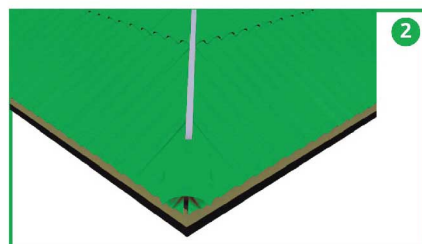


After placing the round ridge into another end of the ridge course,make sure that the tip of the last round ridge is also aligned with the toothed lath. If it is not, some cutting or adding of the round ridge is needed to align it.

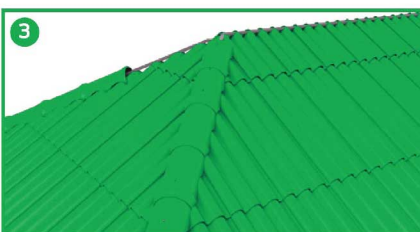
8. Round Hip Ridge Installation in Single Piece Ridge System



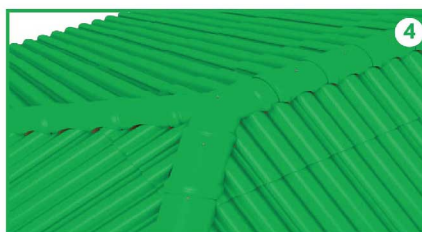
Install the dummy hip beam size 1.1/2"x1.1/2" to support the hip ridge. The back of the dummy hip beam has to be 6 cm. higher than the surface of the purlin in all roof angles.



Put down the first round hip ridge and fix it with Trilon color screw at the middle of the hip tile.



Place the next round hip ridge one by one unto the top. Then go on with another side of the roof.



The last two round hip ridges both sides meeting at the end roof ridge must be trimmed to look properly and nearly fit.

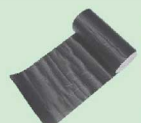
9. Dry Tech Ridge System Installation for all pitch roofing slope

For pitch slope 10°-40° in Gable roof
For pitch slope 30°-35° in hip roof

Dry Tech Ridge System : Accessories

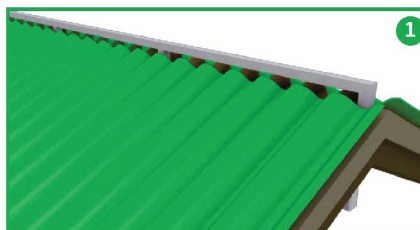


1. Round Hip Ridge
Size : 25.5x45x10.5 cm
Weight : 1.6 kg/pc
Usage : 2.7 pc/m



2. Trilon Dry Tech
size : 0.35x3 M.
Weight : 1.95 kg/roll
Usage : 2.8 M/roll

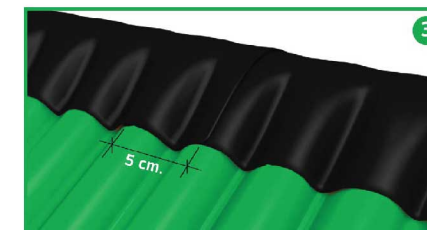
9.1 Dry Tech Ridge System Installation



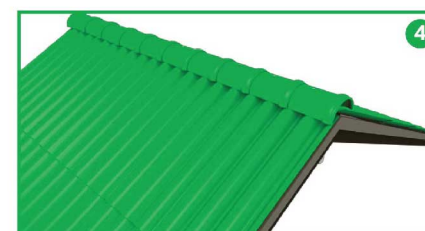
For preparation of roof steel structure and tiling method please see details No.4 (Page 4,5)



Lay the first Trilon Dry Tech piece, aligning its edge with that of the tile. Peel off the adhesive stripe and it down the Trilon Tiles. Make sure that the adhesive strip covers the length of 8 on both roof sides.

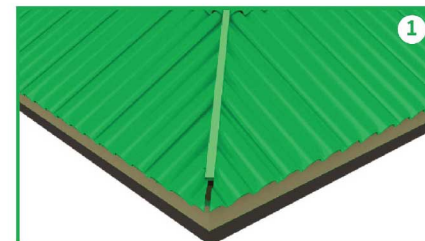


Attach the next piece of Trilon Dry Tech on top of the previous one, with an overlap of 5 cm and press it down firmly.

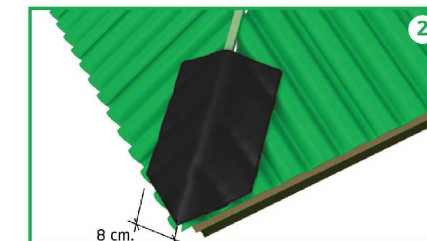


Then install the round ridges over the sheets with the installation method previously mentioned

9.2 Dry Tech Ridge System Installation



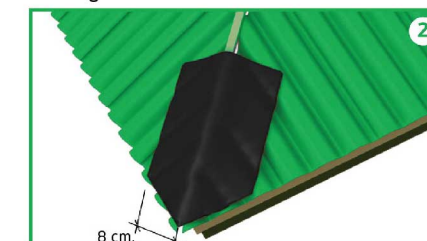
For preparation of roof steel structure and tiling method please see details no.4 (Page 4,5)



Lay the first Trilon Dry Tech piece. Cut half of the width, aligning its edge with that of the tile. Peel off the adhesive strip and press it down the Trilon Tiles. Start from one side then another side. The middle of the adhesive strip must overlap on dummy ridge beam. Make sure that the adhesive strip over the length of 8 cm. on both roof sides.



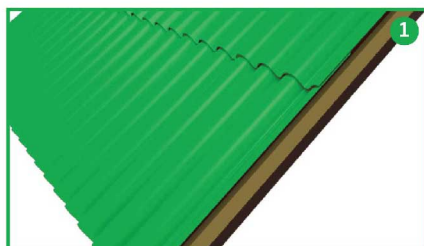
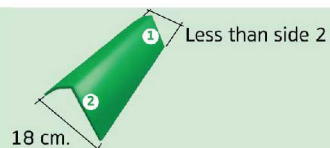
Attach the next piece of Trilon Dry Tech on top of the previous one, with an overlap of 5 cm and press it down firmly.



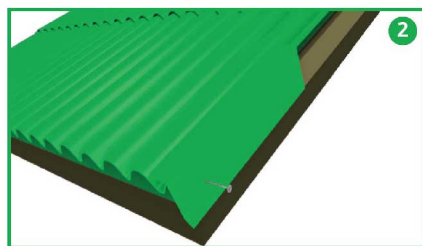
Then install the round ridges over the sheets with the installation method previously mentioned

10. Barge and Barge End Ridge Installation in Single Piece Ridge System

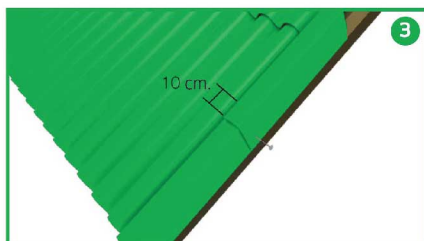
When installing the barge ridge the narrower side #1 has to upturn to the ridge



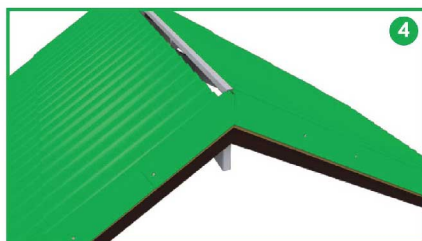
Make sure that the tile adjacent to the toothed lath is one with a corrugation upturned and aligned the toothed lath.



Install the barge end ridge at the lower end of the gable and use 1" screw to fasten it with the toothed lath.

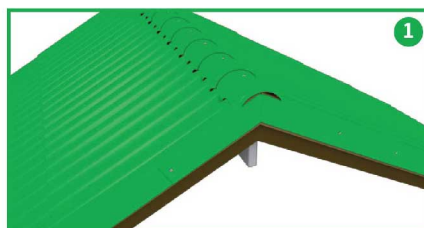


Next, place the first barge and ridge, with an overlapping interval of 10 cm. Fix it with self-driven screws



Trim the topmost barge ridge the gable top so that both sides meet perfectly

11. Round Ridge Installation in Single Piece Ridge System



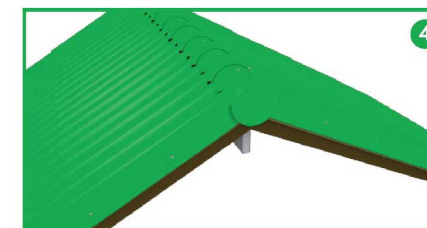
This shows the roof after round ridges are installed. Some cutting was done to ensure a neat finish on the barge ridge.



This shows the roof after round ridge installation and trimming to cover the barge ridge. If the last round ridge is not aligned with the barge tile, more trimming or adding will be needed to make the alignment.

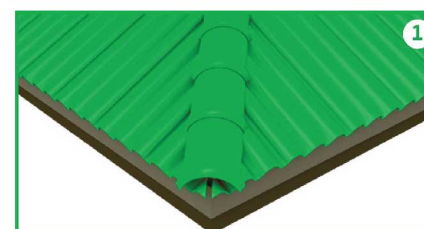


Lace the round ridge end to the roof ridge and fix it with Trilon color screw.

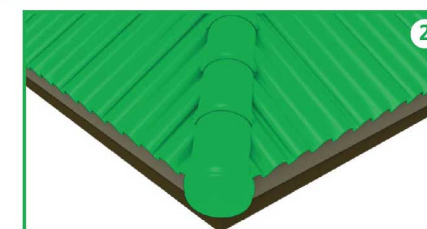


This figure shows the finished installation of the round ridge end.

12. Round Hip End Ridge Installation in Single Piece Ridge



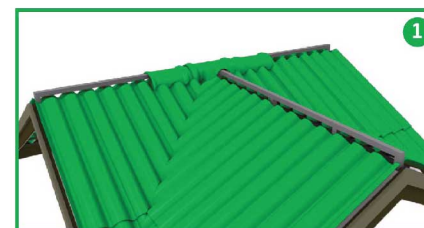
This figure shows the finished installation of a round hip ridge.



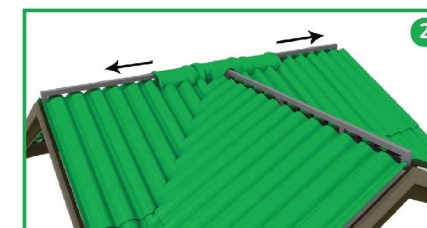
Put the round hip end on the round hip ridge and fix it with Trilon color screw.

Remark : Cutting of tile corners might be needed to enable a close finish with the barge end ridge

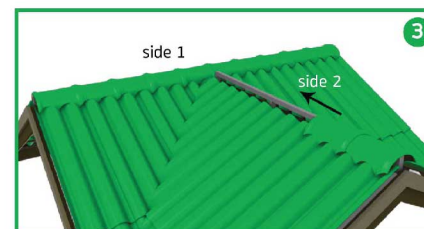
13.3 Ways Ridge - T Installation in Single Piece



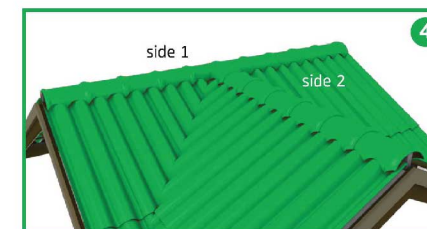
Put down the first round ridge on the intersection and nail it with Trilon color screw.



Install the next round ridge outward to the left and right unit reaching both ridge ends.



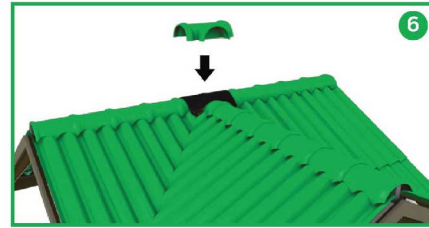
Start installing the round ridge on side #2, beginning from the toothed lath towards the intersection.



Trim the last round ridge of side #2 to make it perfectly joint with the main ridge.

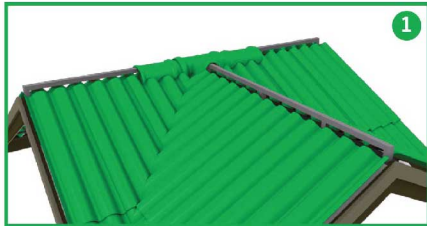


Put a piece of Trilon Dry Tech on the intersection to prevent water leakage.

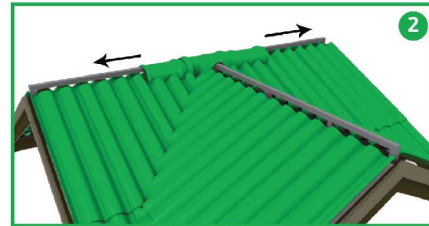


Fix the 3 ways Ridges-T over the Trilon Dry Tech piece and nail it with Trilon color screw.

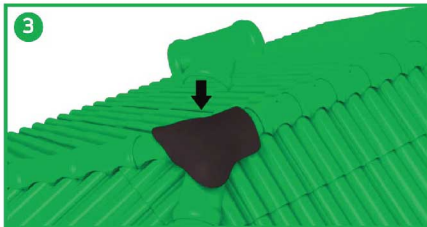
14.3 Ways Ridge- Y Installations in Single Piece Ridge System



The figure shows the trimming of the round hip ridge as it meets the round ridge

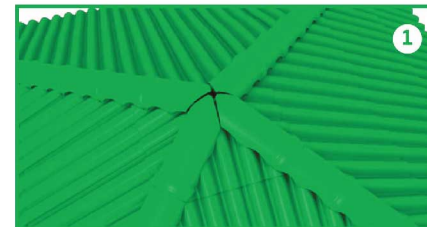


Put a piece of Trilon Dry Tech on top of the junction where the round hip ridge meets the rounds ridge to prevent water leakage

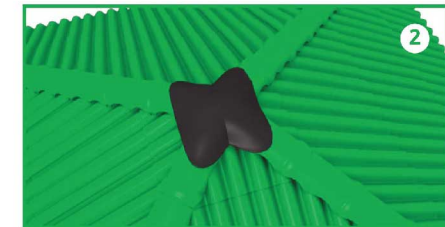


Fix the 3 Ways Ridge Y over Trilon Dry Tech piece and nail it with Trilon color screw.

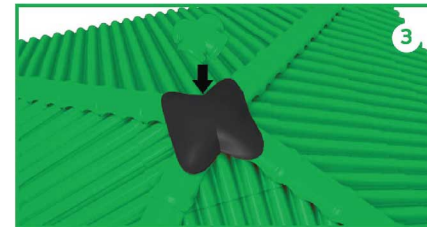
15. 4 Ways Ridge Installation in Single Piece Ridge System



Install round hip ridge on the 4 sides and do some cutting at the uppermost intersection to make the 4 hip ridges joint closely.

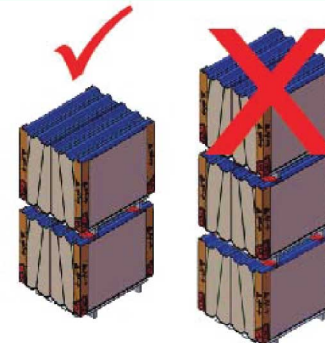


Put a piece of Trilon Dry Tech on top of the intersection to prevent water leakage.



Fix the 4 Ways Ridge over the Trilon Dry Tech piece and nail it with Trilon color screw.

16. Storage Roof Tiles



Full pack storage for roof tile should not over

- Romantiles 4 mm. 330 pcs/pallet
- Romantiles 5 mm. 270 pcs/pallet
- Trilon 5 mm. 240 pcs/pallet

Do not stack up more than 2 stacks



Pack storage in warehouse should not be stacked more than 120 pieces. For transportation, loose pack roof tiles should not be stacked more than 50 pieces.

