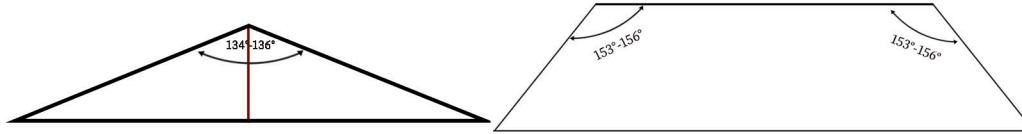


Notes on installing resin tiles:

1. Design recommendations for the best angle, as shown in below pictures



The ratio of the slope height to the total span length: 15%-40%

2. Resin tiles cannot be directly fixed on the roofs, which installed with color steel and insulation materials, and other old roofing

Because Color steel has the properties of heat conduction and heat absorption, and insulation materials have heat insulation and thermal insulation properties, the tiles will be unevenly heated and cooled when they closed to the 2 kinds of materials, then the tiles will be expand and contract inconsistently. Eventually leading to the tiles cracking and deformation.

The old roof has the problem of unevenness.

Therefore, if installing synthetic resin tiles on the roof under these conditions, the roofing must be laid purlins to ensure that there is a certain gap between the roof and the resin tiles (the gap is less than 60cm).

3. Installing the fastening kit correctly

- * The fastening kits must be hit on the crest of the tile, and it should be away from the edge more than 10cm when fix on the last pitches
- * Be careful not to hit it too tight, just hit it into the purlin to bear the force. Otherwise, it is easy to deform the tile, and the pulling force will increase during thermal expansion and contraction, affecting the service life.
- * Don't use too many fastening kits, only 3.5-4 sets per square meter, but it is recommended to reinforce the installation in the following situations to ensure quality..
 - ① In areas with strong winds, it is recommended to use 5-6 sets of fastening kits per square meter.
 - ② If the roof slope exceeds 50 degrees, it also need to be reinforced.
 - ③ The resin tiles on both sides of the eaves, gutters and ridge tiles should also be properly reinforced.

4. Solution to the mismatch between the ridge tile angle and the roof angle:

- A. Use a hot air gun to evenly heat the ridge to soften, and then hand gently press and adjust the ridge angle. (Don't forget to wear heat-insulating gloves)
- B. Cut off 1/3 of the width of one ridge tile and 2/3 of the width of another ridge tile, then splice and adjust the angle to the appropriate position, and fix it.



5. The solution how to deal with the three way tile can not be connected well with other ridges tiles. Please refer to 4.A

6. Installation of main tiles on triangular slopes

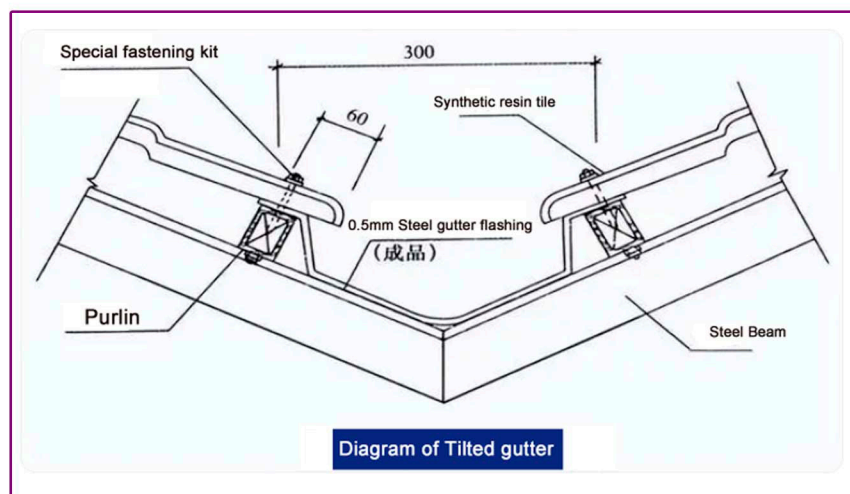
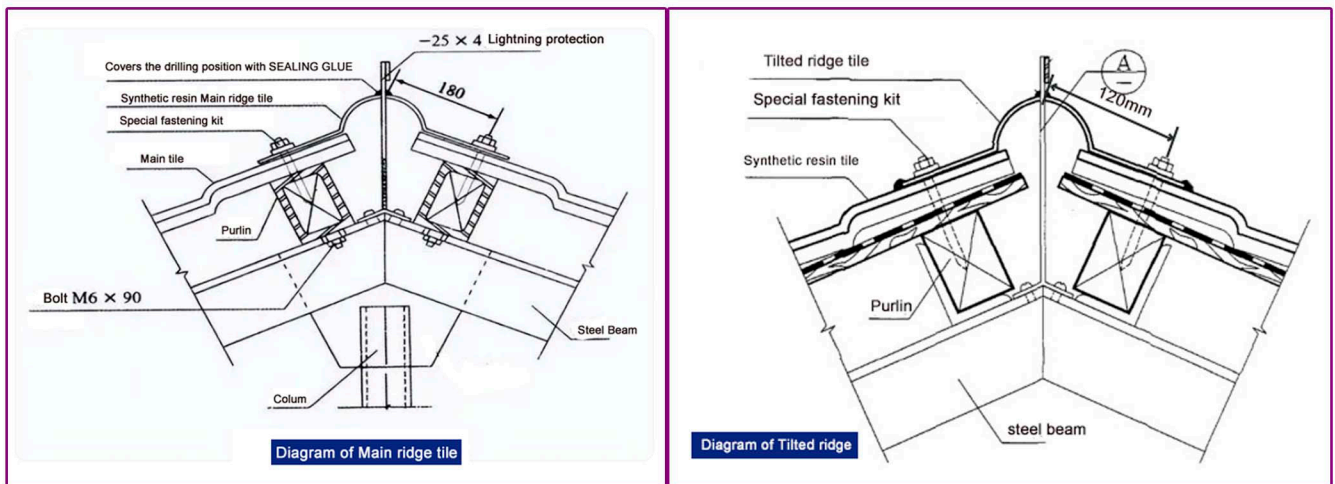
The first tile should be installed from the middle and then on both sides; the redundant parts of the edges, ends, bevels, etc. of each main tile on the slope roof should be marked before cutting to ensure that the edges are neat and straight; if there are inspection holes, flues, exhaust holes and other facilities on the roof, they also need to be marked before cutting.

7. Notes on installing purlins for the main ridge, sloping ridge and sloping gutter

The purlins for the main ridge tiles should be 18cm away from the ridge line

The purlins for the sloping ridge tiles should be 12cm away from the center line of the sloping ridge

The distance between the purlins for the sloping gutter should be 30cm



8. Key points of quality assurance

8.1 The purlins must be flat, not deformed, parallel to each other and evenly spaced.

8.2 The welding parts must be painted with anti-rust paint and the welding points must meet the requirements of the specifications.

8.3 The horizontal overlap of the tile must overlap a complete wave, and the vertical overlap must overlap a complete pitch.

8.4 The gaps can be sealed with neutral glass glue to prevent water leakage.

9. Construction requirements

9.1 The construction environment temperature should be above 5°, and it should be carried out in weather without wind, rain or snow.

9.2 Tiles should be handled with care when hoisting and moving, and should be neatly stacked.

9.3 Construction workers should wear rubber-soled shoes, which are light and non-slip.

9.4 Pay attention to sharp objects and tools during construction to avoid scratching the tile surface.

9.5 After the construction is completed, the flatness of the roof should be checked, adjustments and repairs the unqualified places in time.

9.6 It is necessary to paint twice to all of the node structures with the same color paint as the tile.

9.7 Finally, clean up the garbage on the roof.