

Suntile™ Classic Roofing



THE SUPERIOR ROOF TILE

You can be assured your Stratco Suntile™ Classic roof will be strong and durable, because Suntile™ Classic roof tiles are made from high quality coloured steel. When correctly installed, the interlocking tile panels deliver a weather tight barrier to protect your home against the elements.

Each Suntile™ Classic tile measures 1300 x 370mm which gives you design flexibility and ease of handling, resulting in quicker installation and minimised transportation costs. The Suntile™ Classic tile is a light weight roofing solution, weighing only 3.5kg per m², minimising the cost of framework and making it suitable for situations where unstable ground exists.

BEFORE YOU START

It is the responsibility of the architect, builder and building contractors to ensure all material and works carried out comply with the relevant standards, regulations, codes and by-laws. Carefully read these instructions before starting your project. Install Suntile™ Classic tile as outlined in this brochure to ensure they achieve their optimum performance.

Suntile™ Classic tiles are recommended for installation on roofs with a pitch of 12 degrees or greater. A paper based underlay is required for all roof pitches, as is outlined in the 'New Zealand Building Code, Clause 2, External Moisture, 8.3.6'.

TOOLS REQUIRED

- Hand Guillotine
- Hand Bender / Folder
- Measuring Rod (to mark batten positions, generally made on site)
- Metal Shears
- Nail Gun
- Measuring Tape
- Carpenters Bevel
- String or Chalk Line
- Chalk or Marker (for marking across the tiles)
- Soft rubber soled shoes

COMPONENTS

Ridge detail

There are four standard ridge cap profiles available; Apex, Barrel, Deluxe and Standard. Depending upon the profile chosen the ridge layout should reflect the drawings below (figure 1).

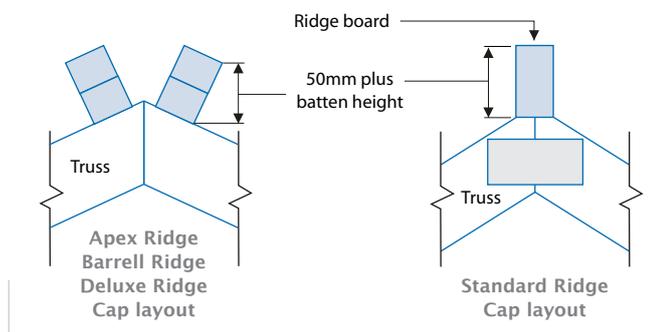


Figure 1

Barge detail

The turn-up edge should be 40mm, and the overlapping barge cover should return down 30mm (minimum) to ensure a weather tight joint, refer to figure 2.

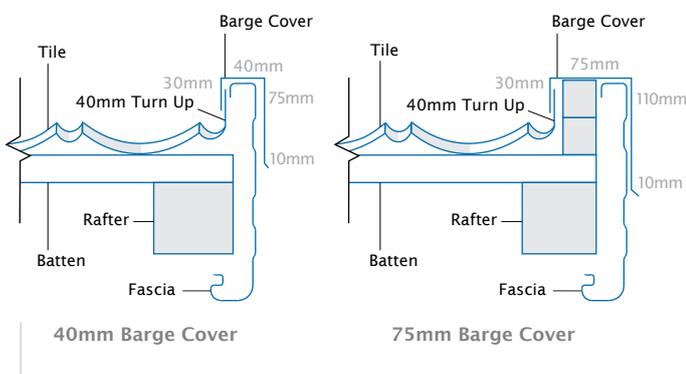


Figure 2

Hip board

The hip board should protrude a minimum of 40mm past the rafter to provide the necessary room to fix the turned-up tiles against the hip board, refer to figure 3.

Fascia board

The fascia board should be set 40mm higher than the rafter, in line with the last tile batten, refer to figure 4.

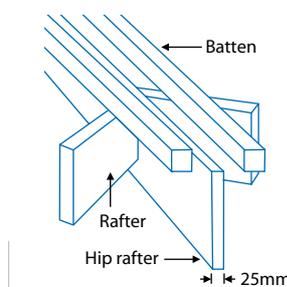


Figure 3

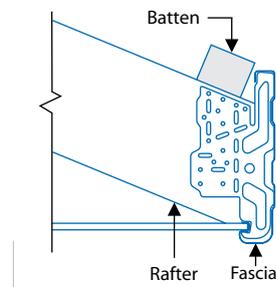


Figure 4

Valleys

Valley boards need to be fixed between the rafters to support the valley gutter, refer to figure 5.

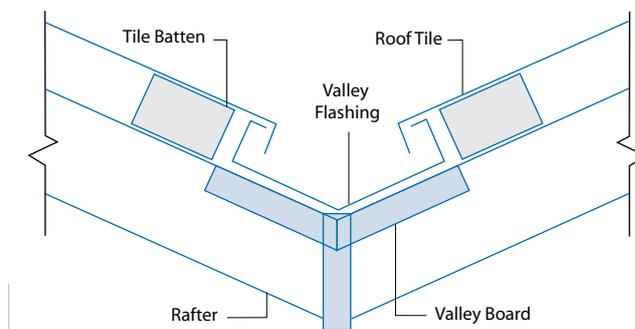


Figure 5

BATTEN INSTALLATION

General information

Batten moisture content, straightness and spacing are critical to the appearance and functionality of the Suntile™ Classic system. Poor layout can result in misaligned laps that do not seal effectively and aesthetically diminish the appearance of the product. It is advised to set out a marking device that provides the correct batten centres to ensure accuracy.

Timber used for battens should be seasoned (moisture content 15% or lower) and kept dry. Excessive moisture content in wet or unseasoned battens causes them to shrink after installation, and may result in uneven tiles.

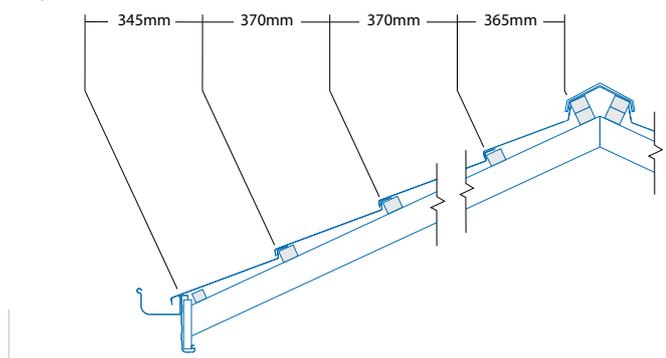


Figure 6

If stored on site, the battens should be placed on level bearers to prevent contact with ground or water. They should also be covered, if necessary, to keep them straight and dry.

Batten fastening

Simply load up the battens onto the roof, ensuring that all joints are staggered, and nail one nail per intersection. Where a joint falls it is necessary to nail both sides of the joint over the rafter (Refer to NZS:3604 section 10.9 and 10.10).

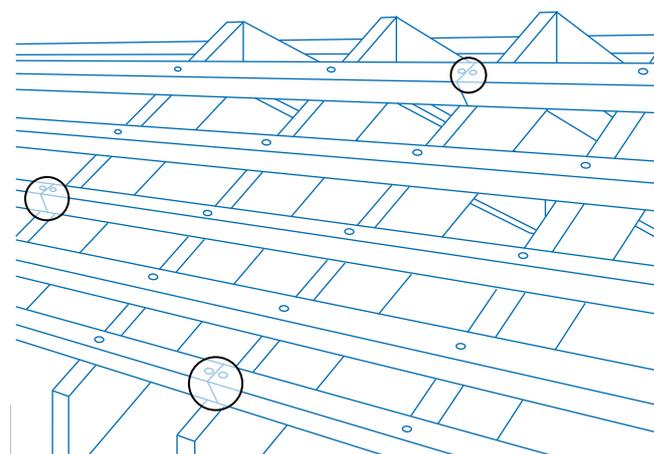


Figure 7

TILE INSTALLATION

General information

The Suntile™ Classic tile should always be installed with the overlaps facing away from the prevailing wind. In addition, where possible laps should also face away from direct sunlight.

Where possible installation should start at the ridge and work down to the fascia, reducing the amount of traffic on the installed tiles.

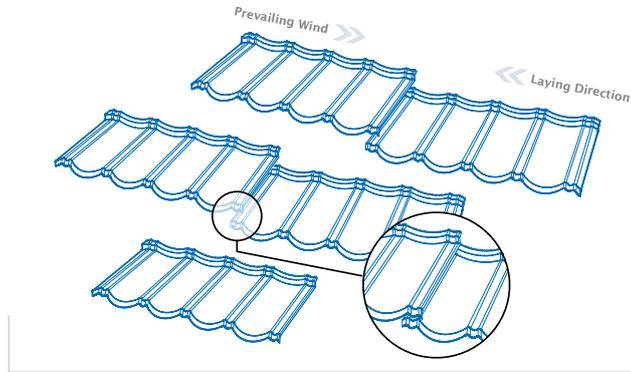


Figure 8

Nailing and fastening requirements

Nail position, spacing and tension are critical to the appearance and functionality of the Suntile™ Classic tile system. Incorrect fastening can result in uneven tiles that aesthetically diminish the appearance of the product.

Stratco recommend that a pneumatic nail gun is used to achieve constant tension and minimise the risk of damaging or scratching the tiles. Round head 45mm or 50mm hot dip galvanised roofing nails should be used to fasten the tiles to the roof battens.

Hold the tiles firmly against the batten and fasten in four positions through the turned-down front edge of the tile as shown in figure 9.

The lowest course of tiles (the eaves tiles) should be fastened through the top of the profile avoiding areas within the profile that carry water.

Paint all nail heads using touch up paint to match the tile colour.

NOTE: For “high wind speed” (44m/s) and “very high wind speed” (50m/s) local regulations for the region will apply. Generally this will result in seven fastening points per tile for the top two and bottom two tile courses and one tile in from hips, valleys and barges.

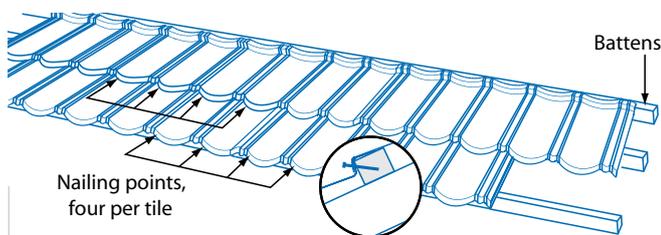


Figure 9

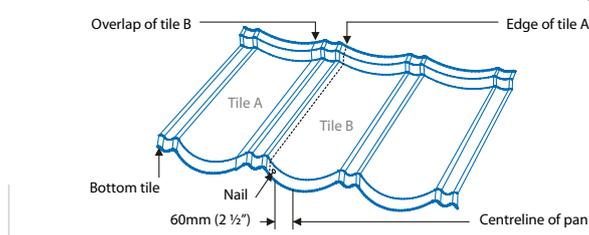


Figure 10

Gable roof

Starting with the second course from the ridge, lay the full course of tiles from barge board to barge board ensuring the end tiles have been turned up to create a weather seal. Next, complete the ridge course by cutting and bending the tiles to suit the ridge board and fasten in place. This reduces the foot traffic needed at later stages. Continue laying the tiles two courses at a time working down towards the fascia board. When laying a straight gable roof it is recommended to start every second course of tiles with a half tile which staggers the over-laps across the complete roof (figure 11).

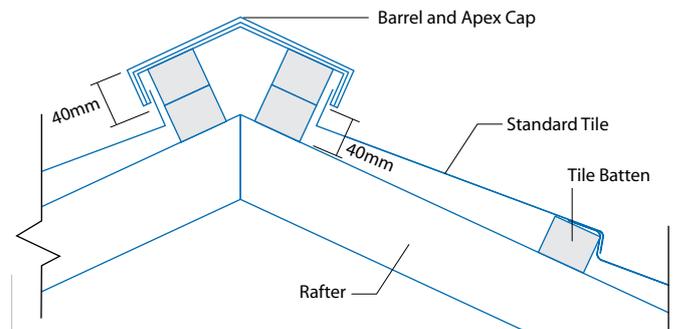


Figure 11

Hip roof

Again starting with the second course from the ridge board, lay the tiles in the desired direction (laps facing away from the prevailing wind). This course must start 150mm from the hip board and finish where the last full tile ends, refer to figure 12.

Continue this process down the roof laying two courses at a time. Tiles that need to be cut should provide enough material to cut two pieces from one.

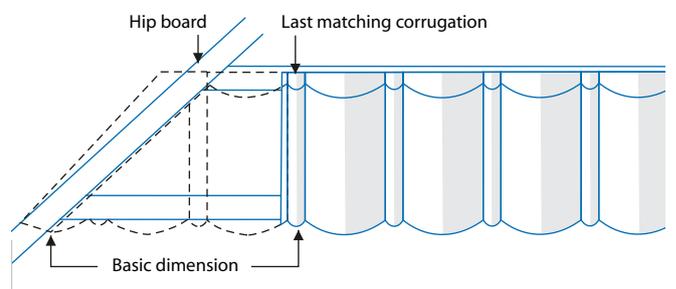


Figure 12

Ridge section

The majority of ridge tiles will need to be cut and bent to suit the rafter length. These dimensions can be obtained by measuring the distance between the underlap of the last tile, to the ridge board (this provides the bend line). Add 40mm to this dimension (this provides the cut line) and cut the tile along this line (figure 3.5).

Turn a 40mm section up to suit the roof pitch and install the tile ensuring the up-turned section is fastened to the ridge board.

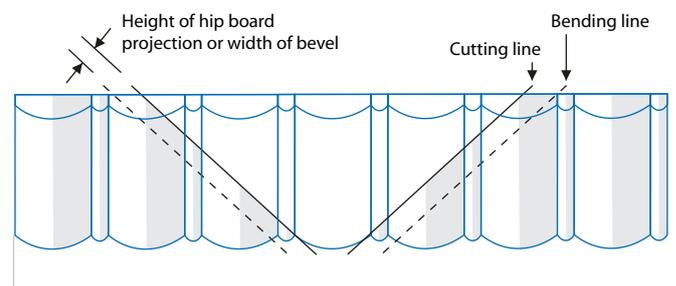


Figure 13

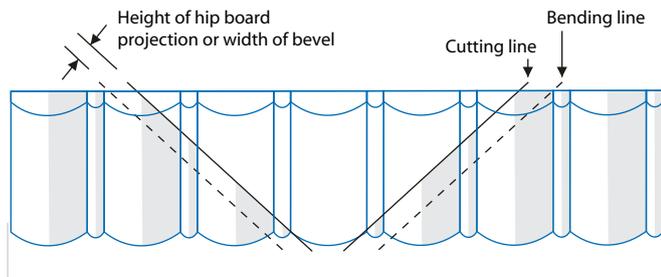


Figure 14

Hip section

To prepare the first and last tile of a hip course, measure the tile length from the last lapping pan across the face of the batten to the hip board or hip batten (figure 15). This is done for the top and bottom dimension and provides the folding line. 40mm must be added, past the bend line to mark the cut line.

The cut tiles are installed from the bottom upwards, fastening into the front of the tile (as standard) and also at two points along the turned up edge. In many cases the off cut from one side should be enough material to use for the other side, reducing the amount of material waste.

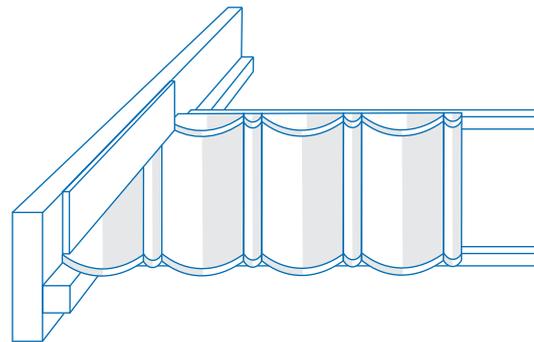


Figure 15

Valleys section

The cut tiles required to complete a course that runs into a valley are prepared by using the same procedure as the hip. The measurements are taken from the last matching pan to a point in the valley gutter which allows for a minimum of 50mm clearance between tiles, but also has an overhang of at least 50mm in the valley gutter.

Fastening the tile should reflect the standard fastening points along the face with additional points as close to the valley as possible without damaging the surface of the valley gutter.

RIDGE AND FLASHING INSTALLATION

Barge covers

Barge covers should overlap the metal tiles and cover the side of the barge board by a minimum of 50mm. To ensure a weather tight seal is formed it is critical that the edge of the tile is turned up by 40mm and fastened to the barge board.

Ridge and hip caps

There are several forms of ridge caps available, all of which have been designed to work with the up-turned edge of the tile. All ridge tiles must be bent up by 40mm and fastened to the ridge board.

Flashings

General flashings are used to ensure a weather tight seal is created in non-standard areas. A flashing is the final cover over a particular joint, and should not be the only means of creating the seal.

Underneath all flashings, the tiles should (where possible) be turned up by 40mm for a weather tight finish, additional side flashings may be required to complete the seal. Builders and building contractors must ensure that all flashings comply with the relevant standards, regulations, codes and by-laws.



MAINTENANCE

The performance of Suntile™ Classic over time is dependant on the correct application of the product as outlined in this brochure, on correct product selection, and on maintenance suitable for the environment in which the product is to perform. It is important that the nails have the same life expectancies as the roof tiles.

Suntile™ Classic is produced from the highest quality materials and will provide many years of service. For more information on gaining the best performance from your product, refer to the 'Selection Use and Maintenance' brochure.