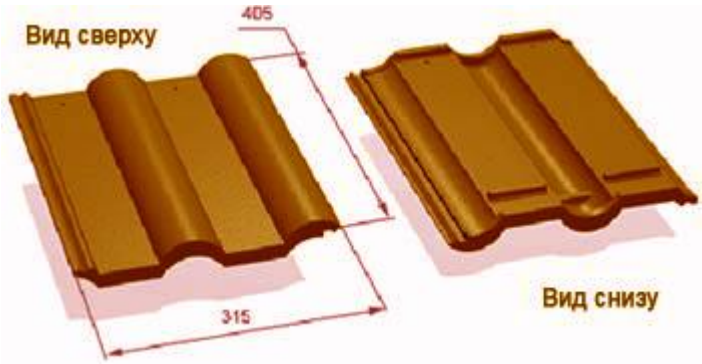
BASIC PARAMETERS OF TILES

Tile type: interlocking stamp tile with side cuts and 2 pins

- dimensions 405x318 mm;
- groove depth 5 mm;
- pins height 15 mm;
- number of items 9 items/m^2;
- weight 23,4 kg/m^2

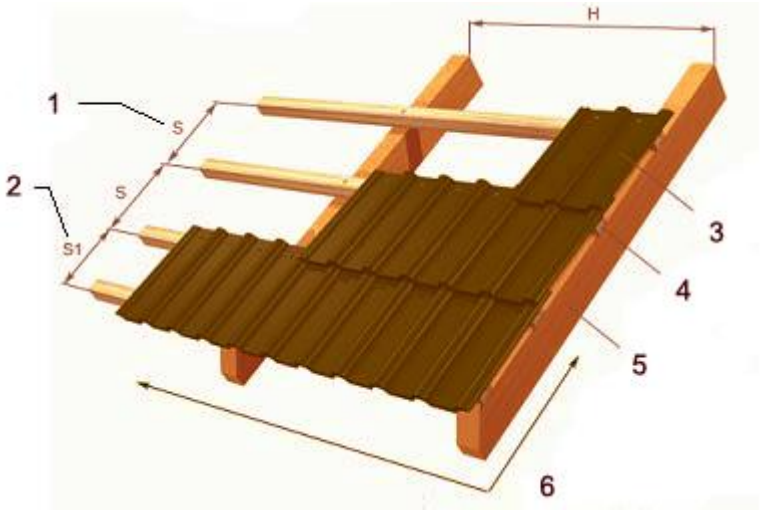


View from above Underside view

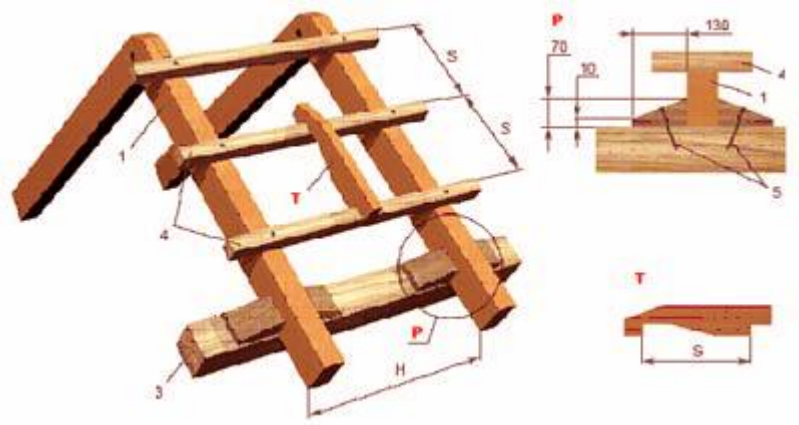
Specification

Methods for fitting to roof

Roofing of resin bonded tiles is similar to that of cement- sand “roman” tiles. The base for roof is a roof batten (subpurlin).
Calculation of a roof batten spacing (S) depends on the size of tiles, roof pitch, and pitch length to put a whole number of rows.
Maximum spacing is 345 mm.
In order to make a roof batten easier roofers recommend to produce a special model, pattern (T)



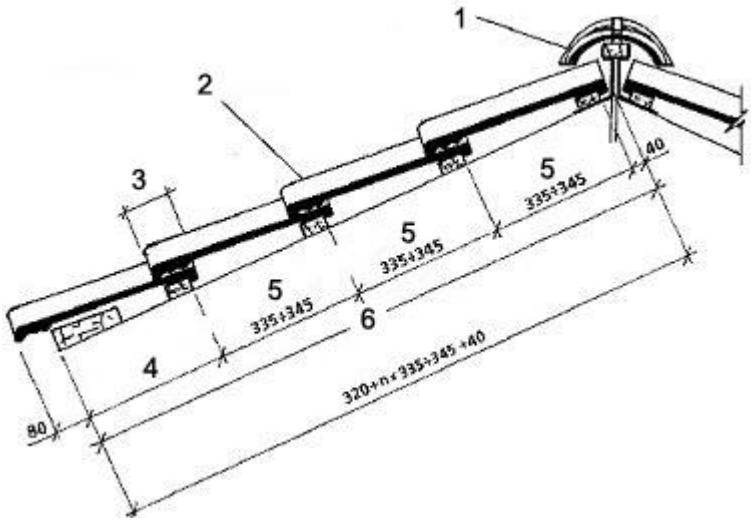
Base: (1 - batten spacing, 2 - bottom row batten spacing, 3 - Britanica tile, 4 - batten, 5 - rafters, 6 - fixing method)



Wooden frame:
Base: (1- rafters, 3 - girder, 4- batten, S- batten spacing, H- distance between rafters, T- beam pattern, P- way to fix rafters to girder)

Recommended beam section is 50*50 mm or 60* 60 mm. The size of section depends on the distance between rafters. The larger the distance the larger is the section size. Beams are fixed to rafters in the direction from roof ridge to the cornice.Along the cornice wooden boards are fixed (width to be 140- 150 mm).That is why S1 reduces at least in the size of board thickness. Recommended spacing S1 is 320 mm (constant). Approximate number of rows and respectively the spacing can be calculated using the table.

[Assemble table]



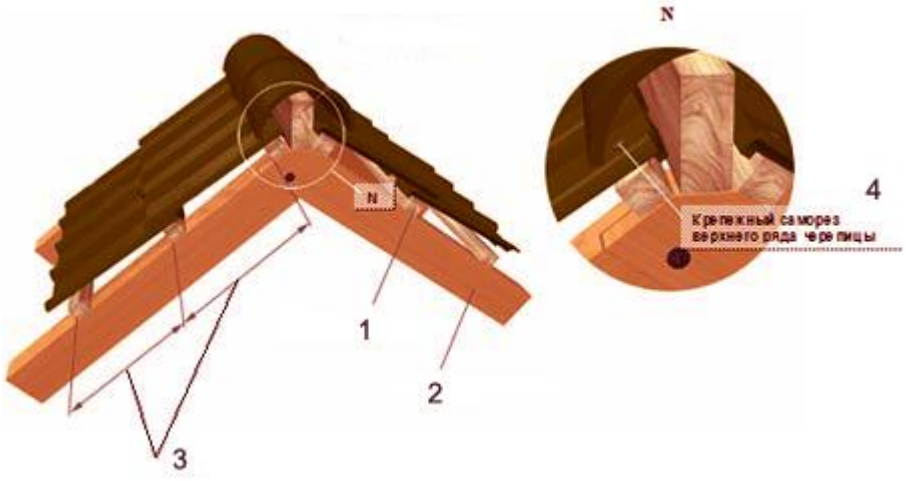
Base: (1 - ridge tile, 2 - Britanica tile, 3 - tile overlap in height, 4 - batten spacing at roof eave (const), 5 - batten spacing, 6 - total overlap length)

How to define the full length of roof pitch

In the first instance the bottom row of tiles are fixed. They are put on 2 battens, fixing tiles using pins to the top batten. Mounting of the rest tiles can be done at the same time in 3-4 rows. The attention should be paid to the fact that fixing a tile to a batten is not tight, because there should be a slight gap between nail head, screw or any other fixing element and the tile surface. At the expense of this gap tile must have a certain gap which will allow it to compensate natural expansion of tile resulting from temperature effect and it will also let a roof resist loads, caused by wind pressure, building set etc without causing any roof deformations and destruction.
Tile mounting is to be done in the direction from the cornice to the ridge, from the right to the left.
This rule has to be observed in order to reach full coupling of tiles between each other and in rows at the expense of the pins and longitudinal cuts. Closed grooved joints which are formed as a result of overlaps prevent atmospheric precipitation (rain, snow) from penetrating the inside of a roof.

Ridge tile assembly

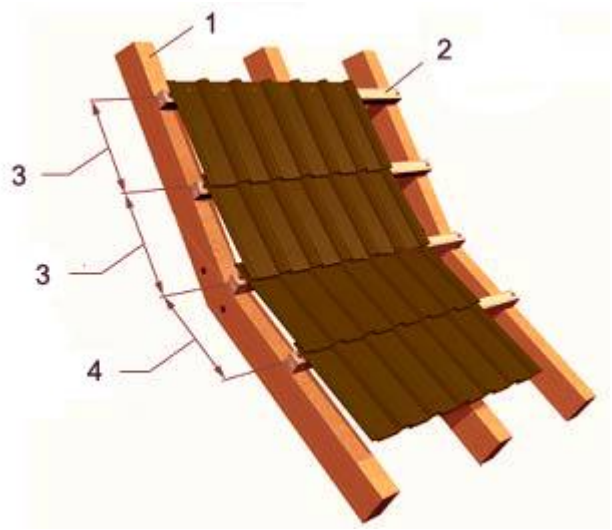
Ridge tiles are fixed with self cutters to the ridge board, there should be gaps (self cutter- ridge tile, ridge tile- ordinary tile) which were mentioned above. Ridge tile must overlap self cutters with which it is fixed to the batten of the top row of the pitch.



Base: (1 - batten, 2 - rafters, 3 - batten spacing, 4 - fixing screw of the top tile row)

Roof with a remote cornice

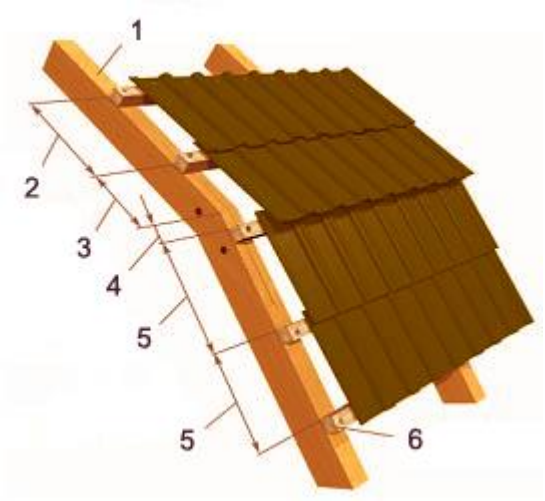
Specific roofing such as pitch with a remote cornice, mansard roofs.
Below you will find a scheme to fix tiles while roofing the pitch with a remote cornice. Here theattention should be paid to the calculation of batten spacing. One has to take into account spacing S4 in a place of pitch bend. This spacing should provide sufficient overlap of the top row of the bend on to the lower one. The top batten of the remote cornice is tightly fixed to a point of the rafters bend.



Base: (1 - rafter, 2 - batten, 3 - bottom row spacing for top pitch, 4 - batten spacing)

An example to assemble tiles for mansard roof.

Below is an example of mansard roofing. While calculating spacings S2 and S3 you need to take into account the pitch angles of half slopes (both top and bottom) and the batten thickness. It can easily be done at the site by way of selecting. Basic peculiarities of assembly:
- the pitch angle of the bottom row in the top pitch must be equal to the pitch angle of top row in the bottom pitch
- bottom row of upper pitch must provide sufficient overlap over the upper row of bottom pitch.



Base: (1 - rafters, 2 - batten spacing, 3 - bottom row spacing for top pitch, 4 - indent of batten from rafter rib bend, 5 - batten spacing, 6 - batten)