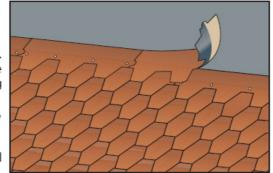
## Installation of roofing shingles

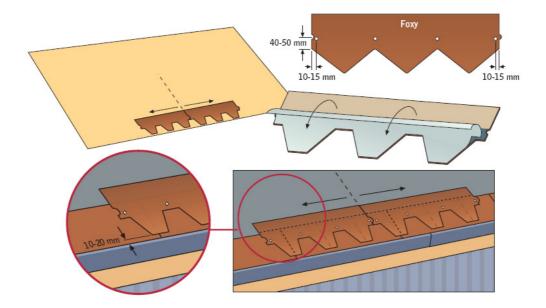
- During installation always mix the shingles at least from 4 to 5 randomly chosen bundles to minimize harmful color differences.
- It is not recommended to install shingles from different production batches on the same visible roof surface. If it cannot be avoided for any reason, the shingles from different batches must be mixed and the possible color (difference) shall be checked continuously during installation.
- The installation of roofing shingles is usually started from the middle of the slope, so that the tabs of the shingles cover the end joints and perforations of the eaves shingles. The lower edge of the first row of shingles is aligned 10 20 mm above the bottom edge of the eaves shingles, so that the line of the eave appears clean and straight when seen at an upward angle from the ground.
- The roofing shingles are fixed with roofing nails (4 pieces / shingle) as shown in the figures below, some 30 mm (Foxy 50 mm) above the bottom of each notch along their centre lines. Roofing nails applied manually or with a pneumatic nailer may be used. Nails must penetrate through the roof deck boarding.
- If visible nail ends are not accepted on the underside or they might be harmful (play house, attic space used for some purpose, etc.), screws of suitable length and with flat and wide heads (KFR screw) may be used for fixing the roofing shingles.
- The shingles will bond to one another, but they are nailed to the substrate. The shingles must be bonded carefully to the substrate at roof valleys (to the valley sheet), at verges (to metal drip trims or to the underlay if a blocking piece is used to raise the edge) and at penetrations (to the sleeve flange).

## Method of application

The roofing shingles are fixed to the decking with sufficiently long roofing nails. The shingles should be lapped so that the nail heads are covered by the overlapping shingles. The bitumen adhesive on the underside will bond the shingles together, forming a watertight and continuous roofing. Installation instructions are printed on the reverse of the product label of each roofing shingle package.



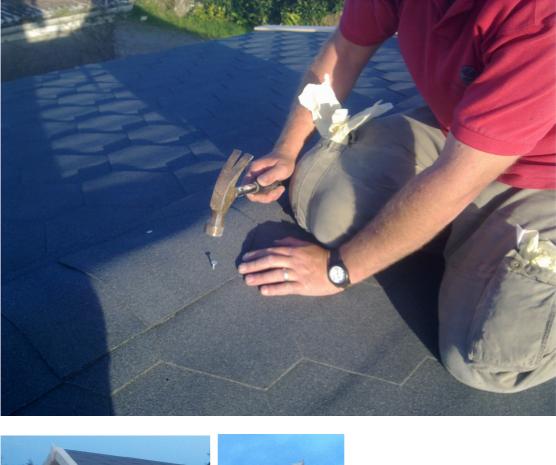




The first line of shingles should be doubled up, two layers of shingles. Turn the first layer 180 degrees so that the tabs point upward. The second layer is then installed with the tabs facing down and then continue on with the rest of the roof.



For the ridge overlap the top layer of shingles on both sides. The ridge tile is cut down from a standard shingle using a Stanley knife. Install as picture.





Please note:

When installing roof shingles we use a front fascia and a top fascia. This finishes off the edge of the roof.