

Installation instructions for Zet® look metal roofing tiles

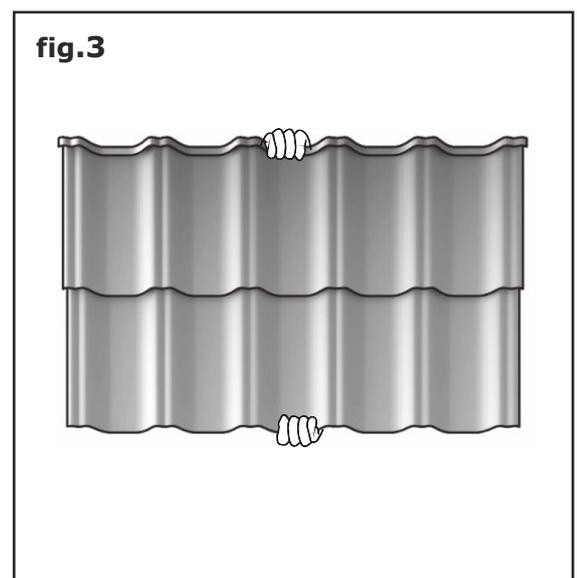
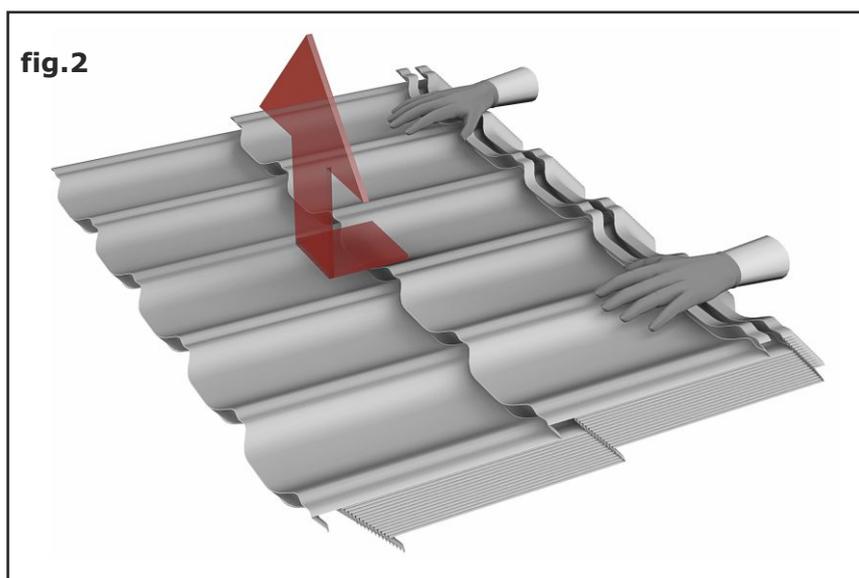
1. Transport

ZET® look metal roofing tiles are delivered on non-returnable europallets. Special transport is not required to deliver the ordered material. However, movement of the package should be restricted during transport to ensure that the material is not damaged.

A single pallet contains 264 sheets, i.e., an effective area of 212.52 m² of covering (**fig. 1**). Owing to their light weight, the tiles can also be transported to the site of the installation works (e.g., via a staircase) by a single person without the need to use special equipment.



Due to the design of the sheets ("Z"-type fold), they should be pulled out of the package as illustrated in **fig. 2**. The sheets must not be pulled out of the package by lifting them straight up. Before it can be lifted, the sheet should be gently pushed several centimetres forward to avoid damaging the coating of the sheet underneath. The correct method of handling the sheet is depicted in **fig. 3**.



2.Storage

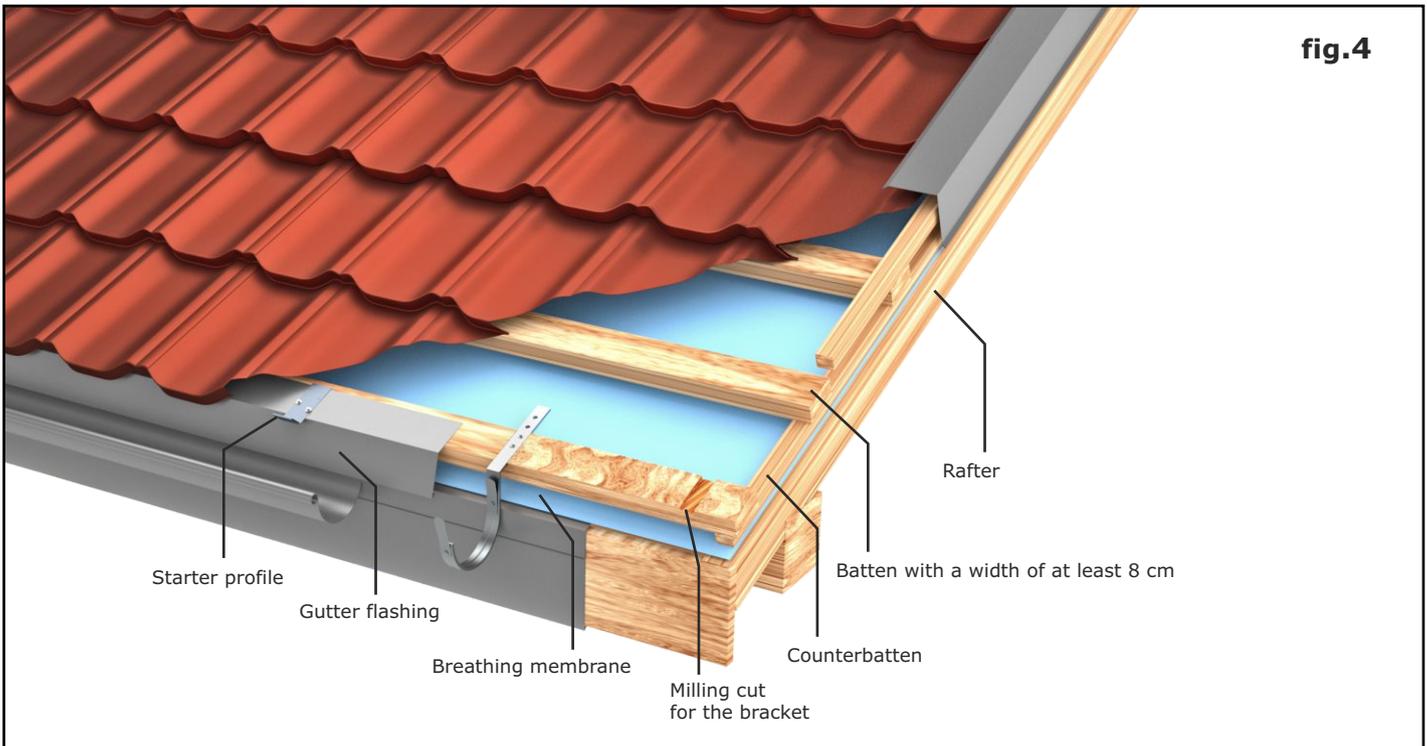
ZET®look metal roofing tile should be stored in dry and ventilated storage premises. If the tiles are to be stored for a longer period, the stacks have to be placed on a surface with a fall to enable evaporation or drainage of the moisture collecting between the sheets. The distance between the stored package and the ground should not be lower than 14 cm. The maximum storage time of the product is 6 months from the date of manufacture. However, upon the lapse of 3 weeks from the date of manufacture, the sheeting used to wrap the pallet with the sheets should be removed to ensure air circulation between the sheets.

Note – sheet surface damage caused by damp will void the warranty.

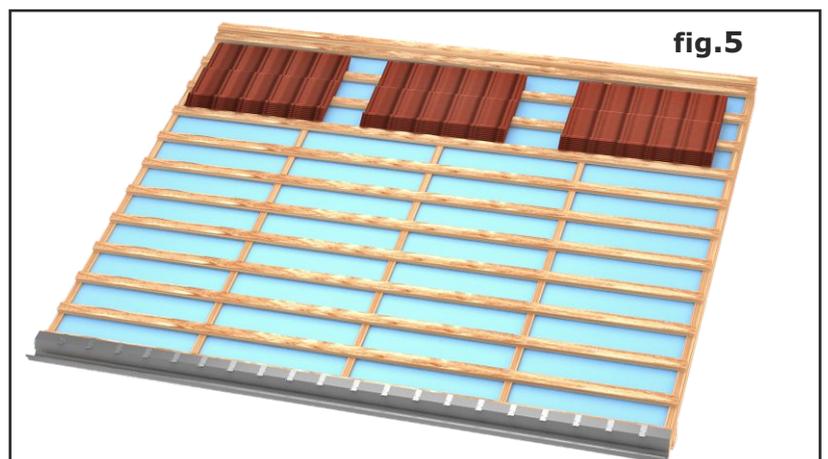
3. Installation

ZET®look metal roofing tile should be installed on a conventionally prepared surface, using battens and counterbattens. Surface preparation and installation should be done in accordance with good roofing practice. It is critical to ensure eaves and ridge ventilation.

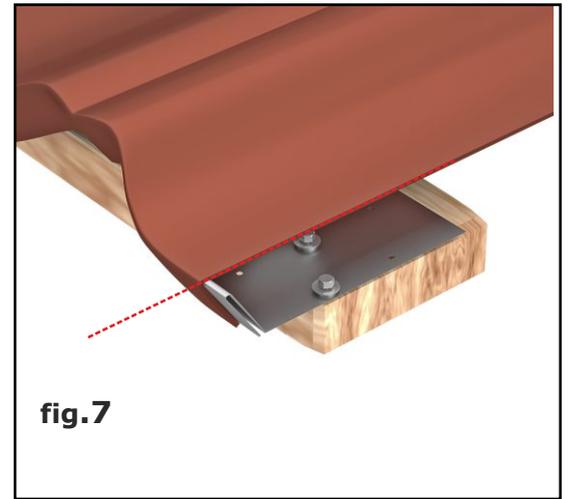
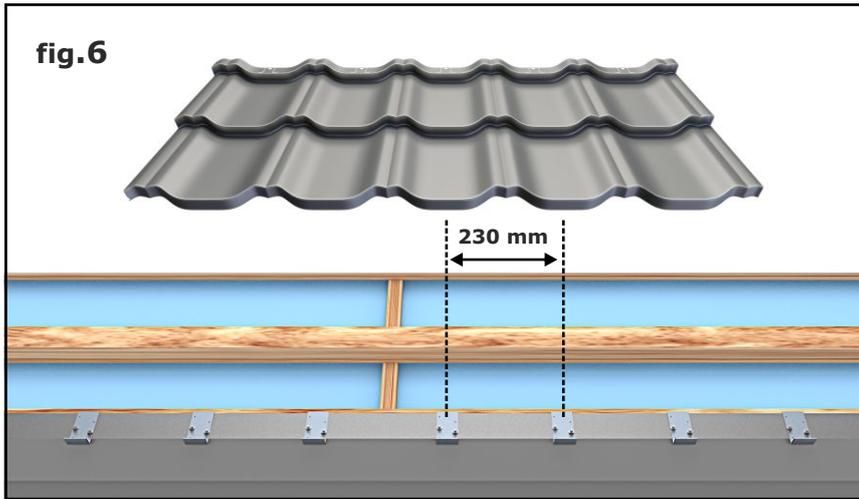
ZET®look metal roofing tiles may be used on roofs with pitch of no less than 9° (15%). The roof structure has to be verified (diagonals and flatness) before installation. The placement of the first batten depends on gutter width and roof pitch. The spacing between the remaining battens is 350 mm.



Walking on the installed Zet®look metal roofing tile sheets should be avoided. Therefore, the required number of sheets should be collected and secured on the roof structure before starting installation (**fig. 5**). This will help to avoid walking over the installed sheets to bring further sheets to the place of installation.



Starter profiles should be fixed to the first batten on the top drip edge flashing, five per sheet (**fig. 6**). These profiles compensate for the tile fold pitch and, most importantly, enable correct installation of the sheet. The width of the first batten should depend on the type of installation and the type of gutter brackets. However, the width of this batten should not be lower than 8 cm.



During profile installation, particular care should be taken to ensure that the profiles are aligned (installation along a wire). Each starter profile is installed with two farmer screws. The installed starter profiles have to catch on the sheet in the centre of the first bottom fold of the profile (**fig. 7**). The distance between corrugation centres is 230 mm. Sikaflex 11FC+ adhesive may be applied on the fold of the starter profile (**fig. 8**) to ensure that the sheet is firmly held by the profile. The sheet is slid onto the folds and screwed to the batten through the prepared mounting holes at the end of the sheet, in accordance with the diagram in **figure 9**, using a magnetic nut driver for a battery screwdriver or drill. Do not bend the plates with the mounting hole before inserting the screw. The plate is bend when the screw is being screwed so that both the plate and the screw come into contact with the batten. ZET[®]look metal roofing tiles should be fixed to the battens with 4.8x35-mm screws. The required number of screws is 5 pcs. per sheet. The recommended batten width for the Zet[®]look metal roofing tiles is 8 cm.

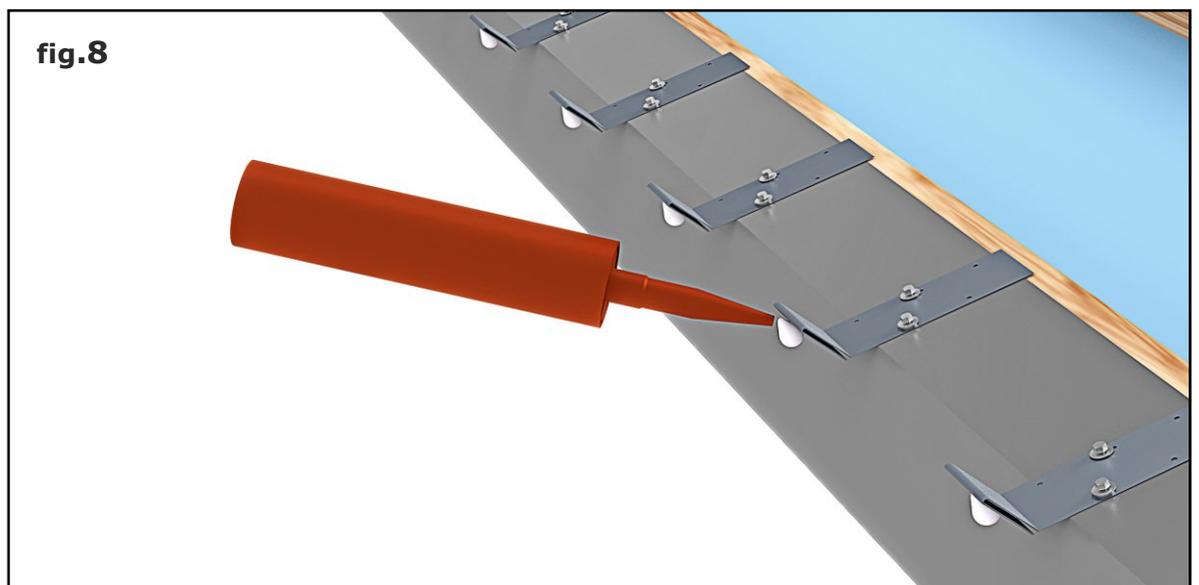


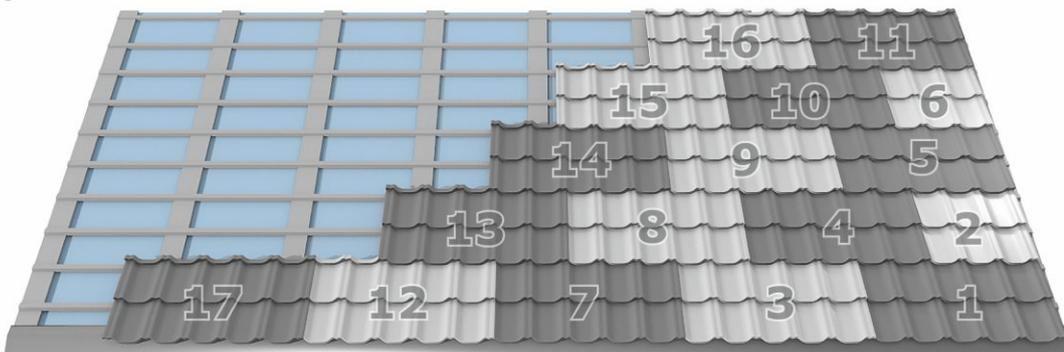
fig.9



If a drip edge is used, it should be installed in a manner that does not prevent the discharge of potential condensation from the membrane to the gutter.

The correct installation method for the ZET®look tile is the so-called "staggered" installation, with the individual sheet rows offset in relation to each other. This can be done because the sheets are symmetrical. Owing to such installation, there are no points of contact between the edges of four sheets. Also, the longitudinal joint lines are not aligned, which improves the appearance of the roof. The correct installation (sequence of placement) for the sheets installed from the right has been illustrated in **fig. 10**. It is also correct to install the sheets in a row, i.e., one behind the other.

fig.10



The distinguishing feature of ZET®look metal roofing tiles is the form of their folds. Conventional metal roofing tiles have folds bent at right angle to the surface of the tile. ZET®look metal roofing tiles use a more advanced solution: the cross section of the surface of two steps and the fold between them forms a „Z" shape, and the fold is bent at an acute angle to the surface of the lower step. This design has many advantages during installation. The bent „Z"-type fold is used as a snap lock during sheet installation. This eliminates the need to additionally join the sheets together at the surface of the folds. It also improves the safety and speed of installation and the appearance of the roof by reducing the number of visible screws. The sheet locking system using the „Z"-type lock is depicted on **fig. 11**. It is very important to ensure that the top sheet is pressed against the bottom sheet as far as possible so that there is no play at the „Z"-type lock (**fig. 12**).

fig.11

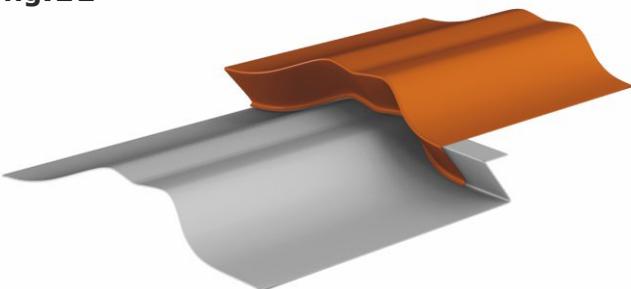
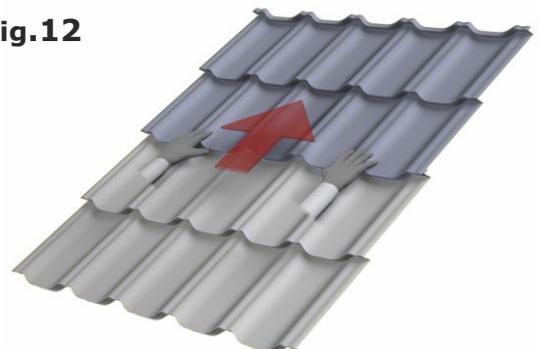


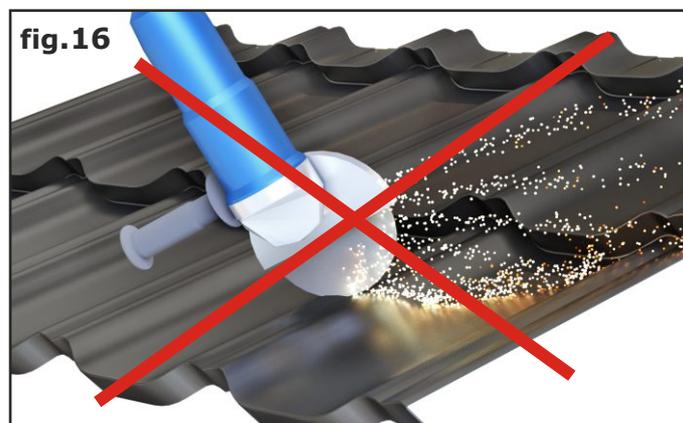
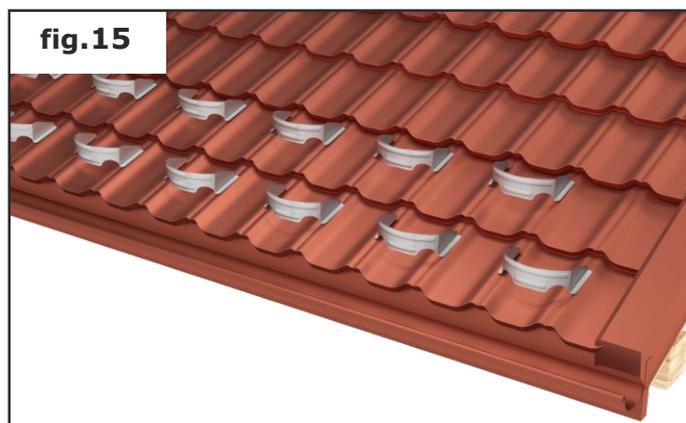
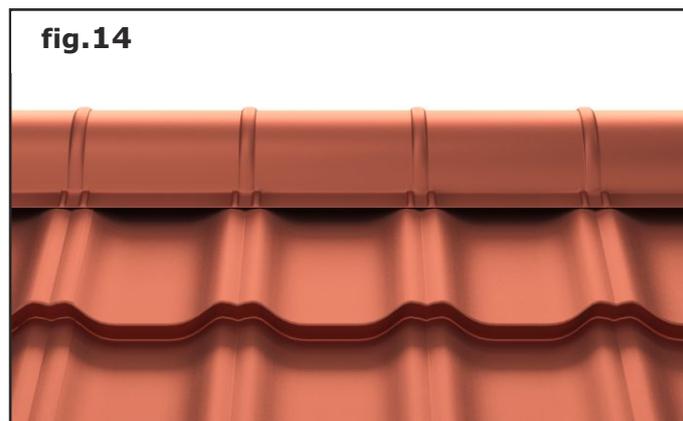
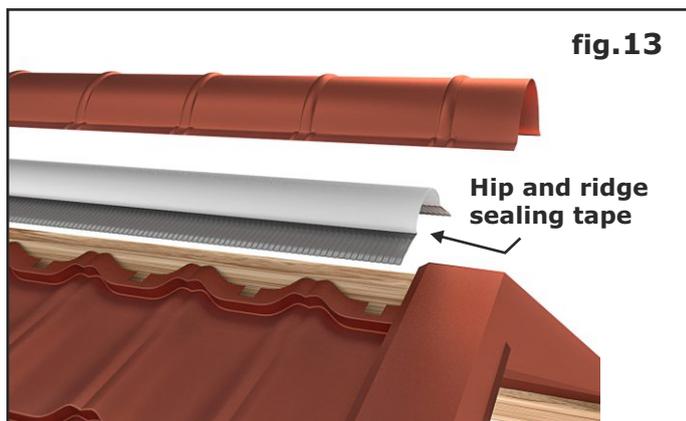
fig.12



The installation of ZET®look tiles has been made considerably easier owing to the symmetry of the profile, as a result of which the sheets can be installed in any direction. The direction of installation can be selected depending on, for instance, aesthetic reasons. Also, if the given tile type is used in areas with strong winds, the direction of longitudinal sheet joints can be adjusted to the wind direction. However, in such a case the direction in which the roofing is installed has to be opposite to the prevailing wind direction. This arrangement will considerably increase the roof's resistance to strong gusts.

The ridge flashings should be fixed "sheet-to-sheet" with short screws (4.8x20 mm), after hip and ridge sealing tape or profiled gaskets have been installed at every second corrugation top (**fig. 13**). The Zet®look metal roofing tile system also includes dedicated ridge tiles. Their diameter and the arrangement of their folds fully match the design of the sheets (**fig. 14**). Flashing should be fixed with 4.8x35-mm screws. Using snow stops on roofs with high pitch (**fig. 15**) will prevent the repair/replacement of the gutter system in spring and eliminate the risk of snow sliding down on the people underneath.

Experienced contractors have individual solutions that may be accepted by the manufacturer.



4. Sheet cutting:

Sheets must not be cut with tools that create a thermal effect (sudden increase of temperature), e.g., an angle grinder (**fig. 16**). This will damage the organic coating and zinc coating, initiating the process of corrosion, which will be accelerated by the hot chips melting into the surface of the sheet. Sheets should be cut with a nibbler or – at small sections – with manual shears.

Enquiries:

All comments concerning these instructions and questions should be sent to the following e-mail address: info@zet-roof.eu