TECHNONICOL






TECHNONICOL SCMRT
installation instructions

KNOWLEDGE. EXPERIENCE. CRAFTSMANSHIP.

Contents:

1.

General information

1. General information

1.1. Terminology

Eave — the lower overhang of the roof slope.
Valley — the space between two adjacent roof slopes that form a gutter (inner corner) for collecting water on the roof.
Gable — a part of the facade of a building limited by the slopes of the roof with a base at the eave.
Hip — the intersection of two slopes forming an outer angle.
Ridge — the upper edge of the roof slope.
Counter battens — bars of a certain cross-section, nailed along the rafters to fasten the under-roof film and form a ventilated space between the film and the roof.
Spaced sheathing — bars of a certain cross-section nailed across the rafters with a given pitch, which serve as the substructure for the roofing material.
Fascia board — a wooden element running along the eave ends of the roof rafters.
Hip beam — a bar of a certain cross-section nailed along the hip to secure the roof covering and provide an exhaust ventilation gap.
Ridge beam — a bar of a certain cross-section nailed along the ridge to secure the roof covering and provide an exhaust ventilation gap.

1.2. General installation recommendations

Temperature and humidity conditions
The required temperature and humidity conditions of the roof can only be provided if its design includes a continuous vapor barrier, a thermal insulation of a thickness required for a given region, wind and moisture protection, and ventilated roof space.

Cutting
The composite tiles should be cut with a hacksaw or metal shears, a jigsaw or a portable electric circular saw with carbide cutting teeth. The use of an angle grinder with abrasive wheels is strictly prohibited!

Warehousing
Store TECHNONICOL SCMRT roofing material in a dry, well-ventilated room. If necessary, the material can be stored outdoors under a waterproof canopy (for up to two weeks).

Contact with metals
The composite tiles must not come into contact with copper- or copper-coated materials, or other non-ferrous metals that are on the same side as copper relative to hydrogen in the electrochemical series of metals. The roofing made of composite tiles can be installed at temperatures down to -20°C.

Hammering the nails
If during the installation process there are difficulties with hammering in a nail (two layers of tiles cannot be nailed through), then it is necessary to 'punch' the place of the future nail hole with a metal hammer and hammer the nail in with a light (plastic) hammer. In this case, the coating on the nail head and on the panel will remain intact.

Tightening the self-tapping screws
In case of metal structure of the roof, the self tapping screws must be used.

Roof covering cleanliness
If the surface of the roofing sheet becomes dirty during installation or operation, it must be washed with a weak soap solution. The use of aggressive cleaning agents is prohibited.

Corrosion protection
The protective aluminum-zinc alloy under the basalt dressing will protect the tiles from corrosion, even if during transportation, installation or operation the surface of the roofing sheet was subjected to mechanical loads and damage appeared on the tiles. Mechanical damage is eliminated using a repair kit (repair paint, repair granulate) at an outside temperature of +5°C.

Storage temperature conditions
Transportation and storage of the repair kit at temperatures below +5°C are prohibited!

Walking on the roof
Wear soft (rubberized) shoes when walking on the roof slope. Nevertheless, stepping on the finished roof is only allowed at the bottom part of the roofing panel wave.

Protection during additional work
If wall chasing, surface plastering, etc. are carried out on the roof, then the installed tiles must be covered with a protective film.

2.

Materials and accessories used

2. Materials and accessories used

Classic Panel

Dimensions: 1,340 × 420 mm
Composite panel for covering roof slopes.
Consumption: 2.1 pcs per 1 sq.m.

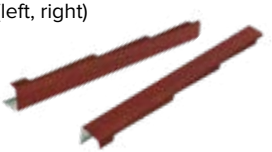
Roman Panel

Dimensions: 1,300 × 420 mm
Composite panel for covering roof slopes.
Consumption: 2.1 pcs per 1 sq.m.

Eaves flashing

Length: 2,000 mm
Composite flashing element for decorating the eave overhang.
Consumption: 0.9 pcs per 1 m

Gabel flashing
(left, right)



Length: 2,000 mm
Composite flashing element for decorating gables.
Consumption: 0.9 pcs per 1 m

Valley

Length: 2,000 mm
Composite flashing element for ensuring water drainage in the valley.Consumption: 0.9 pcs per 1 m of valley

Vertical wall junction

Length: 2,000 mm
Composite flashing element for decorating the junction to the wall located across the slope.

Valley cover

Length: 2,000 mm
Composite flashing element for giving a finished aesthetic appearance to a roof of a complex shape where neat installation was not possible. This item is optional and is not subject to exchange or return.

Flat sheet

Dimensions: 2,000 x 450 mm
Composite flashing element for arranging non-standard assemblies (the patterns are made on site).

Barrel cape

Dimensions: 420 × 148 mm
Composite flashing element for arranging roof hips and ridges.
Consumption: 2.5 pcs per 1 m

Hip & ridge

Composite flashing element for arranging roof hips and ridges.
Dimensions: 2,000 × 210 mm

Ridge/hip beam fastener

Galvanized (or anodized) steel ridge and hip beam fasteners.
Consumption: 1.7 pcs per 1 m

Ridge/hip protection tape

Length: 5 m
Universal self-adhesive material for providing ventilation of the roof space and protecting the ridge from water, snow and bird ingress.
Consumption: 0.2 pcs per 1 m

Black nails (galvanized and painted)

Dimensions: 2.8 x 50 mm
High-strength corrosion-resistant nails.
Consumption: 15 pcs per 1 sq.m.

Self-tapping screws

Dimensions: 4.5 x 50 mm
Special corrosion-resistant self-tapping roofing screws. The set includes a drill bit and a holding adapter. Colors: antique, black, brown, red, green.
Consumption: 15 pcs per 1 sq.m.
Package: 450 pcs.

Repair kit

A repair kit and dressing for restoring the decorative coating of a composite roofing if necessary. Transportation, storage and application at temperatures above +5°C.
Consumption:
the repair kit - 1.75 kg per 100 sq.m
the dressing - 1 kg per 100 sq.m

Corrugated tape for junctions

Dimensions: 0.28 x 5 m
Corrugated tape for junctions with a special decorative coating.
Colors: red (for Coral), black (for Absinthe, Bordeaux), brown (for Mocha, Cork).
Consumption: 0.2 pcs per 1 m

Clamping / junction strip

Dimensions: 2,000 × 85 mm
A flashing element intended for finishing the junctions on vertical surfaces.
Consumption: 0.5 pcs per 1 rm

Wind and water protection membranes

TECHNONICOL ALPHA TOP / ALPHA VENT / ALPHA VENT TPU ULTRA / ALPHA BARRIER ANTI-CONDENSATE

Vapor barrier films

TECHNONICOL ALPHA BARRIER 1.0/2.0/3.0/4.0

Waterproofing film

TECHNONICOL ALPHA BARRIER ANTI-CONDENSATE

Accessories

TECHNONICOL ALPHA PIPE / ALPHA PASTE / ALPHA PROTECT

ALPHA Counter batten sealing tape

A sealing tape made of foamed polyethylene with an adhesive layer of modified acrylate.

It is designed to protect the rafters (solid roof deck) and the thermal insulation from moisture coming through the points where the counter battens and the sheathing are fastened with nails/ self-tapping screws.

Self-adhesive tape
ALPHABAND 60 /
ALPHABAND STRONG 60

Dimensions: 25 m × 60 mm
Universal single-sided adhesive tapes for connecting any waterproofing and vapor barrier films. The tapes are reinforced with mesh to ensure strength and protect the glued area from mechanical damage.

They are designed for gluing roll overlaps as well as sealing roof penetration components and various parts.

Eave ventilation tape

Dimensions: 5,000 × 100 mm.
Designed for the installation of an eave vent.
Colors: brown, black.
Consumption: 0.2 pcs per 1 rm.

TECHNONICOL drainage systems

Ensuring the direction of water flow from the roof and its drainage into the ground is the main function of the TECHNONICOL drainage system. The installation of such a system will protect the facade and socle of the building from the negative impact of water and premature destruction.

- **Plastic drainage systems:**

TECHNONICOL MAXI 150/100
TECHNONICOL 125/82
TECHNONICOL OPTIMA 120/80

A sealing tape made of foamed polyethylene with an adhesive layer of modified acrylate.

It is designed to protect the rafters (solid roof deck) and the thermal insulation from moisture coming through the points where the counter battens and the sheathing are fastened with nails/self-tapping screws.

- **Metal drainage systems:**

TECHNONICOL 125/90
TECHNONICOL STANDARD 125/90

They are made of galvanized steel 0.55 mm thick (0.45 mm for the STANDARD system) with a high-strength polymer coating.

TECHNONICOL vinyl soffits

They are used to ensure air inflow into the roof space and to decorate roof overhangs.

Partially perforated vinyl soffits

Fully perforated vinyl soffits

Vinyl soffits without perforation

Panel dimensions: 3 x 0.34 m
Useful panel width: 0.302 m
Useful panel area: 0.91 m^2
Panel thickness: 0.93 mm

H-channel

J-channel

J-bevel

Finishing profile

External corner 50

Color solutions:

Jasmine* Chestnut** Pecan*** Brunia

* Previous color white RAL 9003 ** Previous color brown RAL 8017
*** Previous dark brown RAL 8019

3.

Preparing the roof substructure

3. Preparing the roof substructure

3.1. Basic recommendations

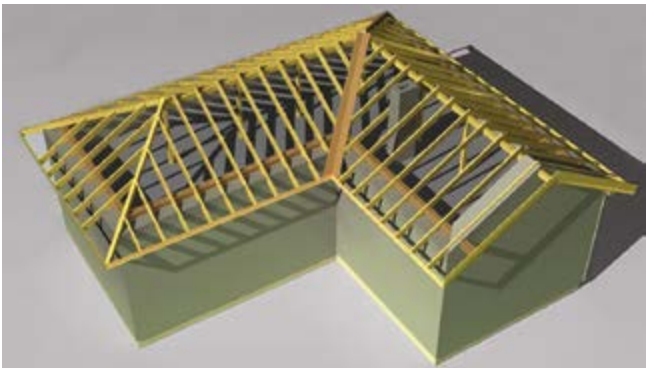


Fig.1

To increase the service life of the wooden elements of the rafter structure, it is recommended to treat them with antiseptics and fire retardants. In doing so, use substances that are not aggressive for roofing films and coatings.

The minimum slope angle at which it is possible to use TECHNONICOL SCMRT is 12°. At slope angles less than 12°, the composite tiles perform only decorative functions.

When laying TECHNONICOL SCMRT on both wooden and other types of structures, the pitch of the rafters depends on the permanent and temporary loads as well as on the individual architectural features of the roof and ranges from 600 to 1,500 mm.

Fig. 2

Direct contact between wooden roof elements and stone structures is not allowed. To avoid rotting, a bitumen-based waterproofing layer is installed between the wood and the stone (see fig. 2).

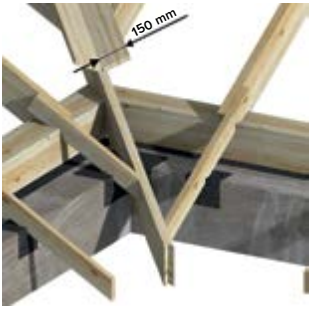


Fig. 3a

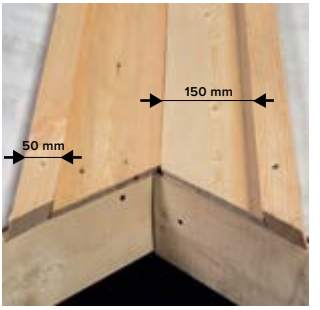


Fig. 3b

Arrange a support deck along the valleys. The width of the deck made of edged antiseptic-treated boards should be 15 cm from the gutter axis (see fig. 3a), the thickness of the board being 25 mm.

Join the boards on the rafters. Install 50 mm x 50 mm bars along the support deck as shown in Fig. 3b.

The lower edge of the substructure is cut along the fascia board, the upper edge – along the ridge axis (see fig. 3b). Before moving on to the next stage of installation, it is necessary to carefully measure the rafter structure. Please check for the deviations in the installation angles of the rafters. Correct the deviations in the rafter system if necessary.

3.2. Roof ventilation

To increase the service life of the under-roof structure, it is necessary to provide ventilation for each element of the roofing system.

ATTENTION! The under-roof ventilation system must exclude areas with stagnant air, the so-called ‘air pockets’.

3.2.1. Cold roof (Non-insulated roof)

In this case, two spaces are ventilated (see fig. 4a):

I. The space between the roof covering and the special film intended for moisture removal

The ventilation system consists of the following:
— outside air inflow openings (1);
— channels above the roofing film for outside air circulation (2);
— exhaust openings in the upper part of the roof (3).

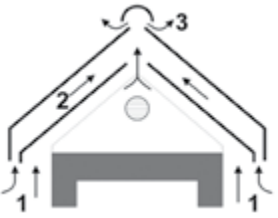


Fig. 4a

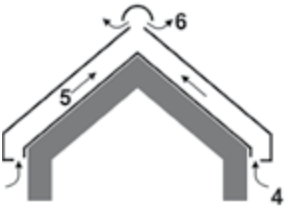


Fig. 4b

II. Rafter system

The ventilation system consists of the following:

— openings for air inflow in the eaves part;
— exhaust openings in the ridge (in this case, it is necessary to provide for the roofing film rupture in the ridge).

In the roofing system, provide for a sag of the under-roof film of 2–3 cm (see fig. 5).

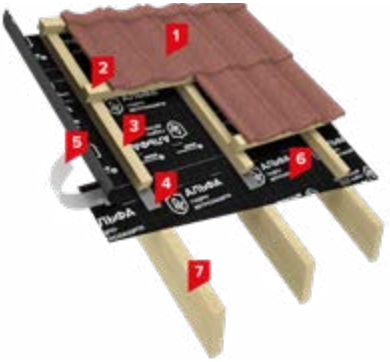


Fig. 5. Structure of the TN SCMRT Classic roofing system

System components:

1. TECHNONICOL SCMRT
2. Spaced sheathing 50*50 mm
3. XPS or wooden bar for forming a ventilation channel
4. TECHNONICOL ALPHA COUNTER BATTEN self-adhesive sealing tape
5. TECHNONICOL ALPHABAND 60 self-adhesive tape
6. TECHNONICOL ALPHA TOP film
7. Rafter

3.2.2. Attic (Insulated roof)

In the attic (see fig. 4b), the rafter system is hidden in the thermal insulation layer, so the entire ventilation load falls on the space between the roof covering and the film.
The ventilation system consists of three main elements:
— outside air inflow openings (4);
— channels above the thermal insulation for outside air circulation (5);
— exhaust openings in the upper part of the roof (6).

To prevent the counter battens from getting wet from under-roof moisture, install a 25 mm high bar (see fig. 6) along the rafter.

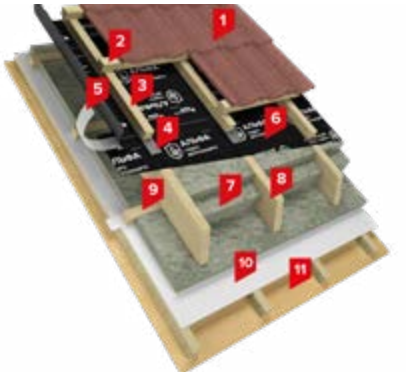


Fig. 6. Structure of the TN SCMRT Attic roofing system

System components:
1. TECHNONICOL SCMRT
2. Spaced sheathing 50*50 mm
3. XPS or wooden bar for forming a ventilation channel
4. TECHNONICOL ALPHA COUNTER BATTEN self-adhesive sealing tape
5. TECHNONICOL ALPHABAND 60 self-adhesive tape
6. TECHNONICOL ALPHA TOP film
7. TECHNOLIGHT EXTRA stone wool slabs
8. Rafter
9. Sheathing for additional roof insulation
10. TECHNONICOL ALPHA Barrier 4.0 film
11. Attic cladding

3.3. Calculation of the area of ventilation openings

The area of the exhaust ventilation openings is 1/300–1/500 of the total area of roof insulation. 35–40% of the resulting area falls on air supply openings (eave) and 60–65% falls on exhaust openings (ridge).

4.

Laying protective film and installing the sheathing

4. Laying protective film and installing the sheathing

4.1. Laying film

Unroll the film onto the plane of the slopes in horizontal strips. The initial fastening of the film to the rafters is done with a construction stapler.

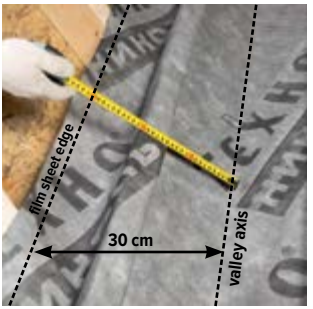


Fig. 7a

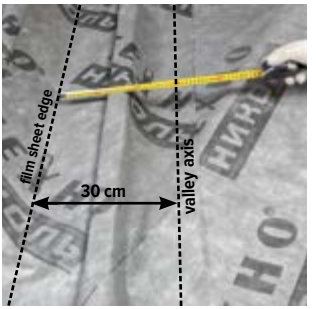


Fig. 7b

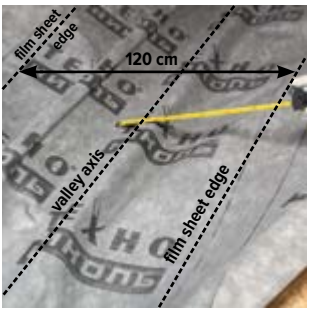


Fig. 7c

In the valley area, place the film from one plane of the slope relative to the valley axis onto the other plane of the slope by at least 30 cm (see fig. 7a). Make a similar overlap on the opposite roof slope (see fig. 7b). Along the valley axis, lay the film at least 1.2 m wide over the overlaps (see fig. 7c).

Place the lower edge of the starting sheet of the film onto the fascia board by at least 2 cm and secure it with a construction stapler. Place each subsequent row of the film onto the previous one with an overlap of 15 cm, according to the water cascading principle.

To seal the overlaps, use the ALPHABAND self-adhesive tapes.

IMPORTANT! To protect the fascia board, it is recommended to install a drip edge at the level of the wind and water protection membrane (see fig. 7d).

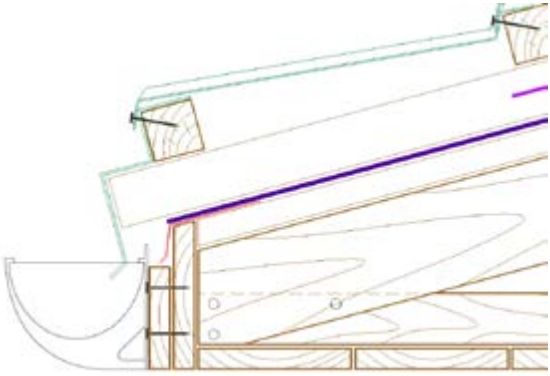


Fig. 7d

If the slope plane is limited on the side by:

— the gable, then the film should hang by 20 cm from the gable rafter structure in order to ensure fastening the film after the installation of the gable elements (see fig. 8).

— the hip, then bring the film from both slopes to the hip and fasten it with a construction stapler at 15 cm intervals. Then, a strip of the film at least 30 cm wide is laid along the hip. The film is fastened along the long edges of the sheet with a special adhesive tape (see fig. 9).

Fig. 8

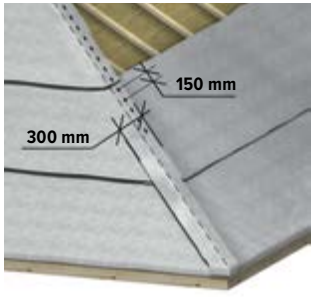


Fig. 9

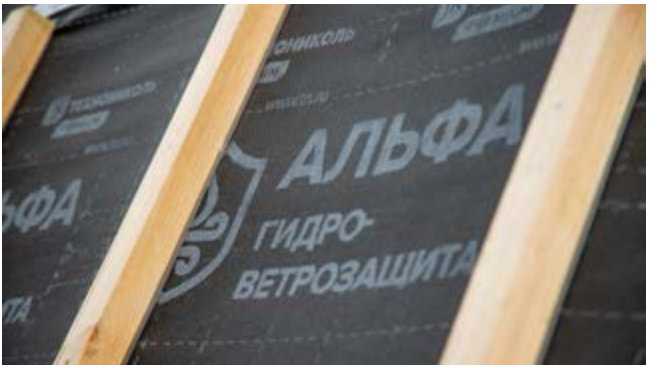
When making junctions to chimneys (or vertical walls), the under-roof film is cut with a 10 cm margin for overlapping the chimney (or the wall) and secured with butyl rubber tape.

4.2. Installation of counter battens

4.2.1. Choosing the counter battens

The necessary ventilation of the roof space is provided with the help of counter battens - bars with a cross-section of 50x50 mm nailed along the rafters. This also ensures the final fastening of the film on the rafter structure.

Between the counter battens and the wind and water protection membrane, the ALPHA Counter batten sealing tape is installed to protect the rafters (solid roof deck) and the thermal insulation from moisture coming through the points where the counter battens and the sheathing are fastened with nails/self-tapping screws. The use of the sealing tape is mandatory on tiled roofs of complex shape and roofs with a small slope angle (less than 22°).



4.2.2. Eave overhang of the counter batten

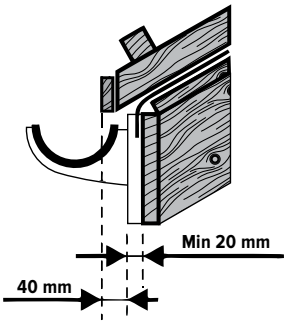


Fig. 10

A support board with a cross-section of 25 × 50 mm is mounted on the lower edges of the counter battens on the eave overhang in order to align and support the drip edge. Therefore, when installing the counter battens in the eave overhang area, please make sure that they overhang in accordance with Fig. 10. The amount of the overhang is the sum of the thickness of the wooden base used for the hooks of the drainage system (= 2 cm) and 1/3 of the cross-section of the gutter (= 4 cm).

Through the space between the wooden bases, the outside air for ventilation of the roof space gets in. If a drainage system is not installed, installation of the wooden bases is not required.

4.2.3. Counter battens of the valley

Mount 50x50 mm bars along the valley support deck, having first made sure that the valley gutter fits the dimension. These bars are mounted on top of the rafters as shown in Fig. 11.

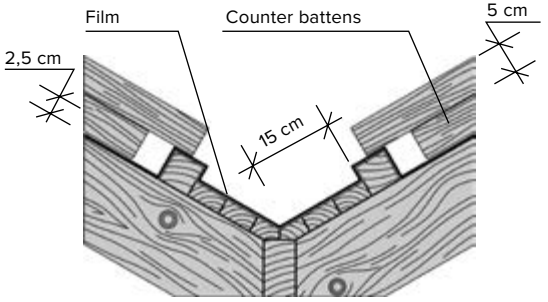


Fig. 11

4.2.4. Counter battens of the valley leading to the roof slope

Mount 50x50 mm bars along the valley support deck, having first made sure that the valley gutter fits the dimension. These bars are mounted on top of the rafters as shown in Fig. 12a.

It is necessary to install 40 mm wide linings under the lower edge of the deck of the valley leading to the roof slope (see fig. 12b).

Fig. 12a

Fig. 12b

4.2.5. Counter battens on the roof hips

Mount the counter battens along the hips, one counter batten for each slope. The distance from the hip axis to the counter batten is 20 mm.

Leave a ventilated gap of 50 mm between the counter battens of the roof slope and those of the roof hip (see fig. 13).

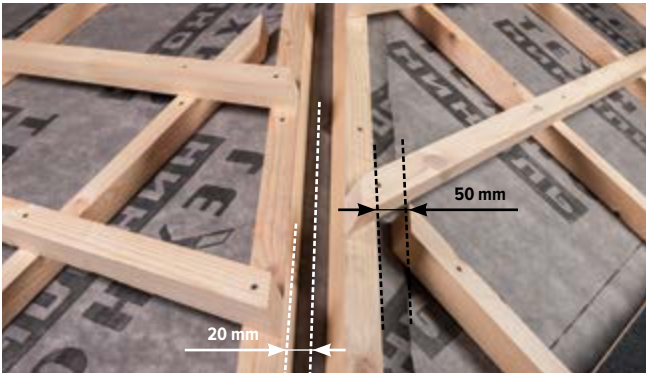


Fig. 13

4.3. Installation of a spaced sheathing for subsequent TECHNONICOL SCMRT installation

Depending on the rafter pitch, bars of different cross-sections are used. For a rafter pitch of up to 1,000 mm, bars of 50 mm × 50 mm cross-section with a relative humidity of not more than 20% are used. For a larger rafter pitch, it is necessary to use bars of a larger cross-section. Check the cross-section dimensions with your architect (designer).

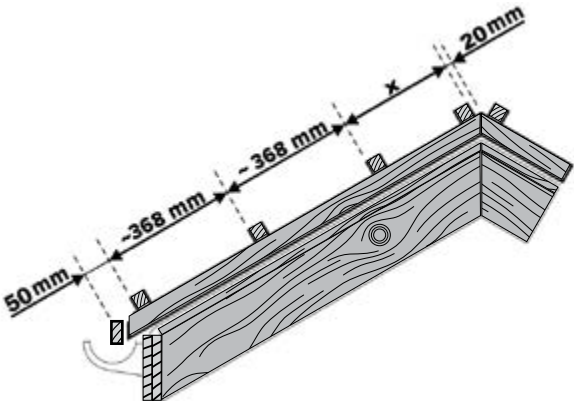


Fig. 14

It is recommended to install the sheathing going from the bottom up (see fig. 14). Fasten the bottom bars of the sheathing mechanically with a setback of 50 mm from the overhang of the counter battens. Install the subsequent rows with a constant pitch.

It should be noted that the sheathing pitch is determined on site, taking into account the overlaps of the panels, and is approximately equal to 368 mm. This condition is decisive, since the accuracy of measuring instruments from different manufacturers at different air temperatures is not equal to the standard.

The last bar of the spaced sheathing (in the ridge part) is installed 20 mm short of the ridge axis.

4.4. Arrangement of verges and eave overhangs

After completing the installation of the counter battens and the spaced sheathing for subsequent installation of TECHNONICOL SCMRT, install a bargeboard along the gable as shown in Fig. 15.

The upper end of the bargeboard must be 30-40 mm higher than the plane of the spaced sheathing. In doing so, place special films on the upper edge of the bargeboard. Next, install the eaves ventilation tape, which is attached to the lower sheathing bar and the fascia board.

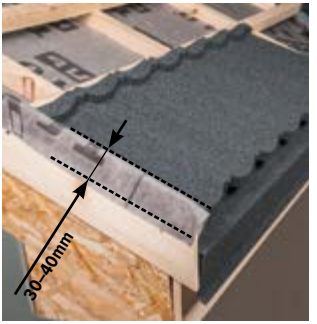


Fig. 15a

Fig. 15b

5.

Installation of the TECHNONICOL SCMRT system accessories

5. Installation of the TECHNONICOL SCMRT system accessories

Before installing TECHNONICOL SCMRT, install wooden bases for the subsequent installation of gutter fasteners (hooks). This must be done to ensure the inflow of outside air between the drainage system gutter and the fascia board.

5.1. Eave overhang

Attach the top crest (short side) of the metal eaves flashing to the first bar of the spaced sheathing and place its second crest firmly against the support board of the counter batten overhangs (see fig. 16).

Fig. 16

Fasten the eaves flashing to the spaced sheathing bar with special nails or special self-tapping screws driven into the top crest at intervals of 25 cm.

Make sure that the end overlap of the eaves flashing is 10–15 cm. For aesthetic reasons, the overlap of all the eaves flashings must be in the same direction (clockwise or counterclockwise).

In the valley area, trim the drip edge so that the valley gutter can pass freely through it.

5.2. Fastening the panels

Install the tiles going from the bottom up (see fig. 17a). When installing, take into account the prevailing wind direction (wind rose). The sheets must be fastened starting from the opposite side of the prevailing winds.

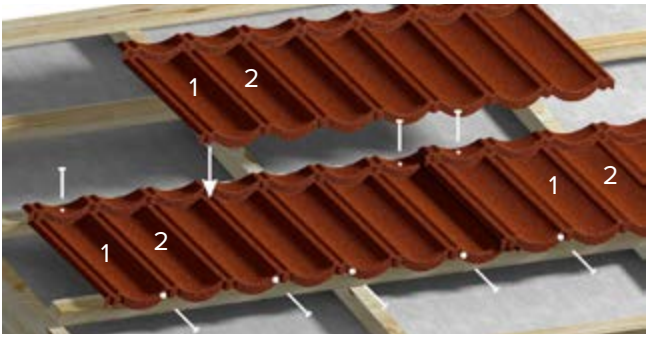


Fig. 17a

Fig. 17b

Fig. 17c

Lay the upper row with staggered seams. Fasten the panels according to Fig. 17b and 17c with special galvanized nails or self-tapping screws. The places for fastening the panels are shown in Fig. 17a (4 pcs in the lower part of the panel, 3 pcs in its upper part). The number of fasteners must correspond the rate of at least 7 pieces per panel.

Drive the nails or self-tapping screws into the lower part of the panel of the panel at an angle of 60 degrees to the plane of the slope in the places where the wave touches the wooden spaced sheathing.

If you use fasteners that differ in color from the main roof surface, it is recommended to coat the heads of the nails or self-tapping screws with paint and apply the dressing from the repair kit on the top.

5.3. Gable

Trim the TECHNONICOL SCMRT panels adjacent to the gable, taking into account the overlap onto the bargeboard (2.5 cm). Then grip the side part of the panel measuring 2.5 cm in a vice or a special machine tool and bend it 90 degrees upwards.

In order to reduce sheet deformation and retain the aesthetic appeal of the roof, bend and straighten the sheets using a vice with metal corners of the required length pre-welded to its jaws or a special machine tool. Bend the panels at a temperature of at least +5°C.

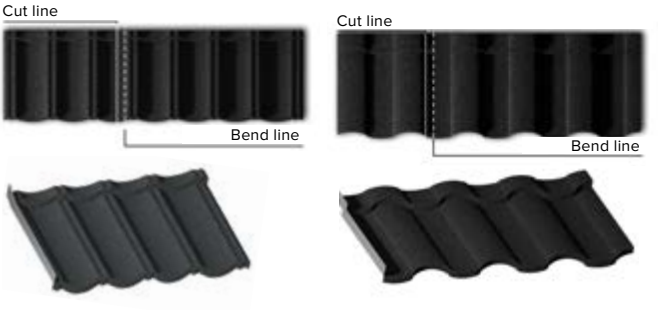


Fig. 18

Mount the gabel flashings going from the bottom up and fasten them with special galvanized nails or galvanized self-tapping screws to the bargeboard both on the slope and gable plane sides (see fig. 19a and 19b).

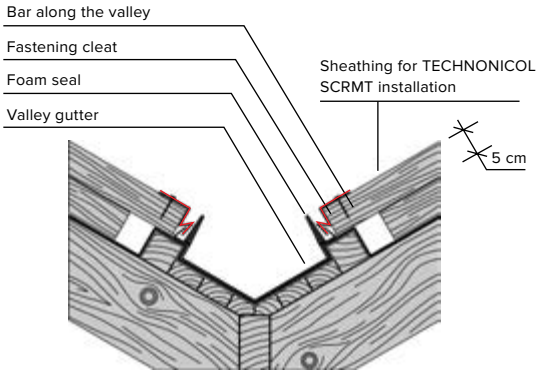
The overlap of the gabel flashings is 10–15 cm. Instead of a standard gabel flashing, it is permissible to use a barrel cap.

Fig. 19a

Fig. 19a

5.4. Valley

Mount the valley gutter along the axis going from the bottom up. Secure the valley gutter using special metal cleats with a pitch of 25–30 cm as shown in Fig. 20.



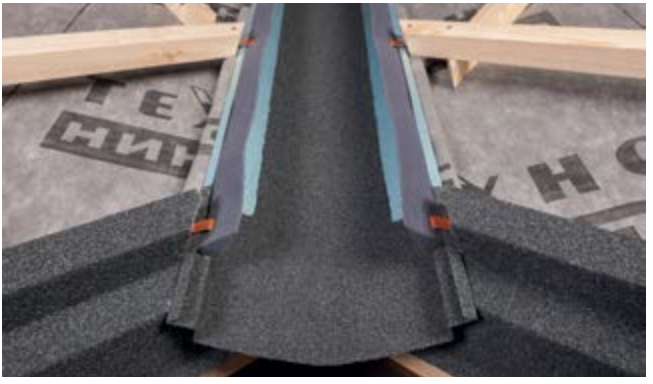


Fig. 20

Place the first valley element onto the lower crest of the drip edge. Trim the part of the valley element that extends beyond the drip edge and bend it downwards.

Place each upper valley element into the lower one and secure with cleats. Each element is additionally secured at the top with 2 nails, which are then covered with an overlap. Arrange all overlaps of 15–20 cm according to the water cascading principle.

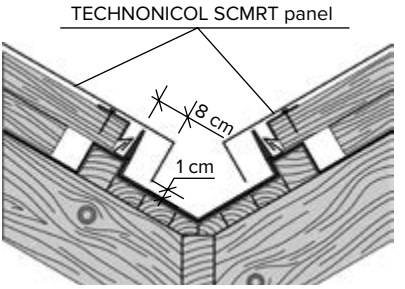


Fig. 21a

Fig. 21b

Make the TECHNONICOL SCMRT panel overlap the valley element by 8 cm and bend the panel downwards so that the distance between the lower bend of the composite tile and the valley element is 1 cm (see fig. 21a and 21b).

5.5. The valley leading to the roof slope

Seal the valley in the place where it leads to the composite tile panel with a special tape used for junctions (see fig. 22a). Use a profiled strip of hot-painted aluminum as a gutter.

Bend the long sides of the strip 2.5 cm upwards (in order to form the skirting of the valley) (see fig. 22b).

Secure the resulting gutter with six cleats to the counter battens using 2.8 x 25 mm galvanized roofing nails (see fig.22 c).

Fig. 22a

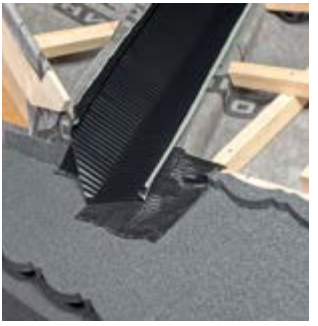


Fig. 22b

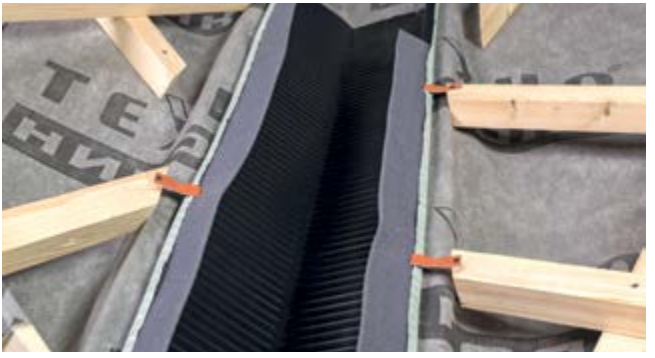


Fig. 22c

To prevent the gutter from sliding downwards, nail its top end with four nails.

ATTENTION It is not permissible to nail the gutter itself along its length.

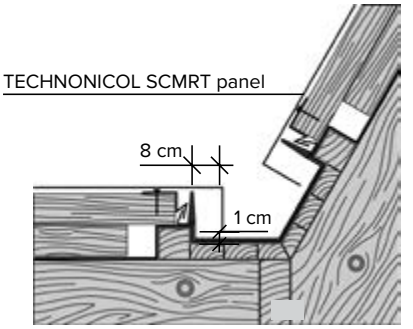


Fig. 23

Make the TECHNONICOL SCMRT panel overlap the valley element by 8 cm and bend it downwards so that the distance between the lower bend of the composite tile and the valley element is 1 cm (see fig. 23).

5.6. Roof hip

Install wooden spacers or special metal fasteners used for the hip beam on the roof hips at 60 cm intervals and fasten them with self-tapping screws. The height of the spacers (metal fasteners) is set on site. The recommended cross-section of the hip beam with this interval between the spacers is 50 mm × 50 mm (see fig. 24a and 24b).

Fig. 24a

Fig. 24b

Fig. 25

Trim the panels adjacent to the roof hip (see fig. 25) along the hip axis, then grip 3 cm of the panel on the hip side in a special vice or a special machine tool and bend it 90 degrees upwards.

Fasten the trimmed panels in the same way as whole panels.

Place the roll-fed ridge protection tape with the self-adhesive strips facing down. After positioning it, remove the protective film and press the ridge protection tape down to the TECHNONICOL SCMRT panels with a rubber roller until it is completely bonded to them (see fig. 26a and 26b).

Fig. 26a

Fig. 26b

Install the barrel cap elements on the hips going from the bottom up and laying them with an overlap of 2 cm (see fig. 27a).

Fig. 27a

Fig. 27b

Fasten the barrel cap element to the hip beam by driving special galvanized nails or galvanized self-tapping screws into the upper side of the element.

Close the end of the first barrel cap element with a plug cut from a flat sheet. Fasten the cut plug with special galvanized nails or galvanized self-tapping screws to the end of the hip beam (see fig. 27b).

5.7. Junction to a stone chimney

5.7.1. Option 1

This option is not suitable for houses with significant shrinkage and deformation, such as wooden log or timber houses.

Composite tile panels fit tightly against the chimney. The junction between the panels and the pipe is waterproofed with a special roll-fed self-adhesive waterproofing material.

To prevent the waterproofing from sliding off the pipe, secure the junction tape mechanically with clamping rails (see fig. 28a and 28b).

Fig. 28a

Fig. 28b

5.7.2. Option 2

This option is suitable for all types of houses.

Cut the panel that adjoins the chimney at the bottom at 45 degrees. Bend the upper part as shown in Fig. 29.

Fig. 29

Cut the panel elements that are installed at the bottom along the corners of the chimney at 45 degrees. Bend part of the panel upwards.

Bend the composite tiles adjoining the side parts of the chimney at the junction between the chimney and the slope as shown in Fig. 29.

Make a junction between the slope and the back side of the chimney using a flat sheet. For its support, mount a solid wooden deck made of 25 mm thick boards (see fig. 30). The length of the sheet is the width of the chimney plus 20 cm. The width of the sheet is the sum of the sheathing pitch, the height of the overlap onto the chimney, and the height of the bend overlapping the counter batten.

Coat the upper part of the panel adjoining the chimney with a special sealant.

Fig. 30

Install the wall junction profile around the perimeter of the chimney and then fasten it mechanically and seal it in accordance with the scheme shown in Fig. 31a and 31b.

Fig. 31a

Fig. 31b

A junction to the wall is a special case of the junction to the chimney and is made in a similar way.

5.8. Roof ridge

On the extreme pairs of the rafter, install the ridge beam fastenings, the height of which is set on site (see fig. 32a and 32b). Using a marking cord stretched between the extreme fastenings of the ridge beam, install the remaining fastenings of the ridge beam on each pair of the rafter.

Fig. 32a

Fig. 32b

Fasten the ridge beam with a cross-section of 50 mm × 50 mm (or 50 mm × 75 mm) to the ridge beam fastening with self-tapping screws. The size of the top row of the slope panels has to be adjusted, so trim the panel lengthwise and shape a support element in a vice or a special machine tool to be laid on the sheathing.

Fasten the trimmed panels in the same way as whole panels.

Place the roll-fed ridge protection tape with the self-adhesive strips facing down. After installing the ridge, remove the protective film and press the ridge protection tape down to the TECHNONICOL SCMRT panels with a rubber roller until it is completely bonded to them.

Lay the barrel cap elements with an overlap of 2 cm and fasten them at the top edges to the ridge beam with galvanized nails or galvanized self-tapping screws.

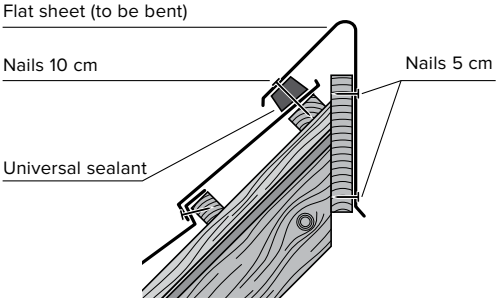


Fig. 33

If the roof is single-pitched, make the ridge according to Fig. 33. Bend the flat sheet and trim it according to the roof slope and rafter thickness. For decorative purposes, you can attach barrel cap elements on top of the flat sheet.

Fig. 34

The intersections of the slope hips with the ridges are made using a pattern from the ridge element as shown in Fig. 34.

5.9. Installation of complex roofing elements

Make the external bend of the slope using an eaves flashing (see fig. 35).

When making the internal bend, no additional elements are required (see fig. 36).

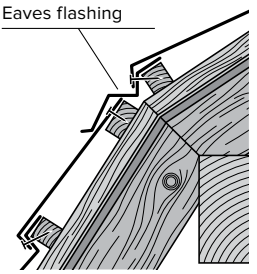


Fig. 35

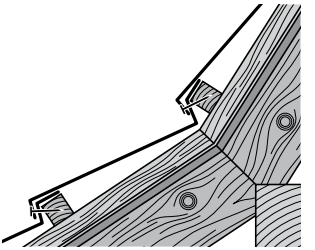


Fig. 36

Cover roofing elements of a hemispherical or conical shape with the TECHNONICOL SCMRT flat sheet. In this case, install a solid sheathing made of such materials as moisture-resistant plywood, OSB-3, edged or tongue-and-groove boards. Lay down an additional waterproofing film.

From the flat sheet, cut out the pieces that you will use for installation. On the main surfaces, install the serial panels as shown in Fig. 37. This method can also be used to lay panels on ordinary slopes.

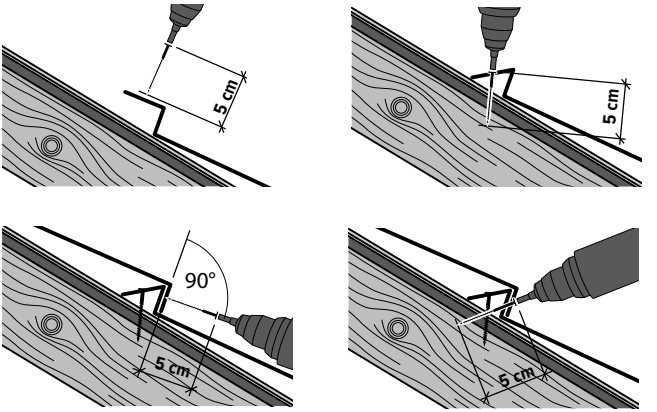


Fig. 37

5.10. Completion of installation

— Prime all cut edges of aluminum-zinc accessories.
— To restore the areas of the roof covering where the dressing has come off as well as to conceal (at the customer's request) the heads of nails or self-tapping screws, cover these areas with special paint followed by the application of dressing granules.
— Fill in the joints of composite elements in complex assemblies with a mixture of paint and dressing.

ATTENTION! TECHNONICOL Corporation recommends adhering to these instructions when installing TECHNONICOL SCMRT. In case of non-compliance with the above installation rules, use of non-recommended accessories, violation of building codes and regulations when designing roofing structures and performing roofing work, the warranty for the products shall become null and void.

Technical specialists of TECHNONICOL Corporation will provide the necessary consultations and comprehensive support during installation.

Note

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