

„EUROTOP” MEMBRANE INSTALLATION MANUAL

This Manual presents the most important rules for installing vapour-permeable roofing membranes of the **EUROTOP** family used for initial roofing.

□□1. **EUROTOP** is designed as an insulating layer for inclined roofs, which slope is $\geq 20^\circ$ ($\geq 36,4\%$), mounted to battens and counter-battens. That is why the design of the roof where the membranes are installed should make it possible to remove any leakages off the roof.

□□2. Thanks to high vapour permeability **EUROTOP** membranes enable keeping the roof dry, however, only when a constant flow of air over the membrane along the counter-battens is provided. The water vapour penetrating through the membrane is removed by the flow of air. Therefore, the inlets and the outlets of the ventilation gap have to be free of obstacles, protected from an access of animals and the height of the gap has to be chosen appropriately to the size of the roof (Fig. 3)

□□3. **EUROTOP** can be applied directly onto the thermal insulation layer installed in roofs when the attic used as a living space. It can be also mounted over garrets, where thermal insulation is installed in the floor. In both cases the **EUROTOP** membrane is installed in the same way.

□□4. **EUROTOP** shall be installed with its grey surface down and the imprinted surface up. The basic mounting is provided by a properly fixed counter-batten. If it is necessary to provide additional mounting, the membrane should be nailed directly to the rafters with nails or tackers, which have to be put under the counter-batten.

□□5. **EUROTOP** may be installed onto the roof structure (Fig. 1) or onto sheathing boards. In the latter case the membrane is more exposed to damages, which are not visible compared to the roofs without sheathing. Moreover, during the roofing works the sheathing is used as a walking platform, which increases the chances of damage.

□□6. The most effective way of installing **EUROTOP** is to start from the eaves and to lay sheets horizontally with overlaps, which width depends on the inclination of the roof (see Table 1). **EUROTOP** may be also laid perpendicularly or askew towards the eaves, if necessary. In case of the perpendicular direction, the vertical overlaps shall be joined by means of adhesive tapes.

□□7. The leakproofness of the **EUROTOP** membrane is satisfactory when the adjacent sheets are installed with an overlap (Fig. 1), which width is marked with a dashed line on the top surface. The last sheet shall be laid onto the ridge with a min. 15cm-overlap so that the ridge is covered with a double layer (Fig. 2). Also, the membrane sheets shall overlap at the corners of the roof.

□□8. The leakproofness of the whole system depends on the quality of how the membrane is joined to all structural roof elements. It primarily relates to such places as passages for ventholes and air outlets (Fig. 4), antennas, etc., as well as the connections to chimneys, walls. The overlaps in such places should enable removing water from the external surface of the membrane. The better leakproofness of the system, the better protection of the roof is provided.

□□ Each of these elements can be made in a number of ways, depending on the desired leakproofness of the contact area with **EUROTOP**.

□ In the areas around the skylights, chimneys, dormers and manholes the additional gutters can be made of **EUROTOP** (Fig. 4). The gutters increase protection from leakages and freezing water or condensate flowing down.

□ In the areas around the chimneys, dormers and manholes (Fig. 5) **EUROTOP** shall be mounted by means of a double-side adhesive tape (**BUTYLBAND**) so that a vertical strip of 10-15 cm is formed. All ruptures and cuts at the corners may be sealed tightly. All these elements may also be sealed with a self-adhesive tape to increase leakproofness (Fig. 6). The choice depends on local conditions, decisions of the owner or a supervisory body.

□ To ensure a leakproof connection at the valleys, an additional strip of **EUROTOP** shall be mounted before the sheets are installed. The sheets shall be then laid onto this strip with a min. 15cm-overlap. If the membrane is installed on the neighbouring roof areas one by one, the overlap shall be made over this area, where the membrane is installed later (Fig. 7).

□ The eaves may be made in many ways but the requirements of the □□1 and 2 paragraphs shall always be met. At the eaves **EUROTOP** shall be installed with a double-side adhesive tape so that its edge rests on the gutter or a throat (Fig. 3) under the gutter and is covered by the main layer.

□ All connections with the elements going through the membrane should be sealed with self-adhesive tapes. In case of **EUROTOP** membranes it is recommended to use only tapes, which are specifically designed for it (e.g. BUTYLBAND, EUROBAND W; EUROBAND P).

Notes and reservations

1. The membranes for initial roofing let water vapours through and are used to seal the main roofing layer. They cannot be used as main roofing layer and cannot be installed as a temporary roofing. Installation of the membrane should be performed in the same time as the installation of the main roofing layer.
2. This manual presents the key recommendations and does not include information on all possible roofing solutions. In some situations it is possible to apply a solution other than presented in this manual, however, it is necessary to remember that the choice of a method has an impact on the quality of installation and effectiveness of the membrane.
3. As the EUROTOP membrane is exposed to sunlight (UV) it is recommended to install the main roofing layer as soon as possible after the EUROTOP membrane is laid. The best way is to install both layers at the same time – cover the membrane with a thermal insulation from the inside within 3 months after the membrane is installed on the roof (or the windows are installed), in case of the eaves do it within 2 months. When EUROTOP is applied in garrets, which are not used for living but sunlight can access them, it is necessary to cover the membrane from the light with a thermal insulation or to block out the windows or roof manholes.
4. Please, **respect the fire-protection rules, in particular do not smoke**, when installing **EUROTOP**. The hot ash burns small and hardly visible holes in the membrane, so do hot chips created when steel or metal tiles are cut. This may also lead to fire.
5. The membranes may also be damaged by an incorrect preparation of salt impregnating agents used to protect the battens and the counter-battens over the membrane. Water or snow (melting) rinse salt out from wood so that it builds up on the membrane. When the impregnating agent is prepared incorrectly, it may cause damages not only to the membrane but also to all metal elements of the roof.
6. The Figs. 5 and 6, presenting the way the membrane shall be installed around chimneys, refer only to ventilation ducts and airholes. The smoke stacks shall be covered with the **EUROTOP** membrane according to binding national rules with all fire-protection regulations met.
7. The initial mounting shall be best made with broad-head nails or tackers. This way of mounting may be a source for leakages when it rains and the main roofing layer is not installed yet. When the main layer is installed properly, large amounts of water cannot get

under the counter-battens and waterstains shall not emerge on the rafters. If the investor is afraid of such waterstains, he/she should request the contractor to apply foam sealing tapes under the counter-battens (EUROBAND P).

8. Mounting the membranes onto a board sheathing by means of staples or tackers may lead to damage if the number of mounting points is excessive. Staples or nails shall be put in such places when they could be covered by counter-battens. Sealing shall be made with a sealing tape applied to the counter-battens.
9. If the thermal insulation layer of the roof is in touch with the sheathing boards, onto which the **EUROTOP** membrane is installed, the sheathing boards cannot be wider than 11cm and should be in contact with each other not on their full length. Wider boards require wider gaps between them.
10. The amount of the membrane used is always higher than the roof area and exceeds it by 20 – 200%, depending on the complexity of the roof design and the number of elements passing through the roof.
11. Any solutions, which are simpler than those recommended in this Manual, may lead to an incorrect sealing of the roof.

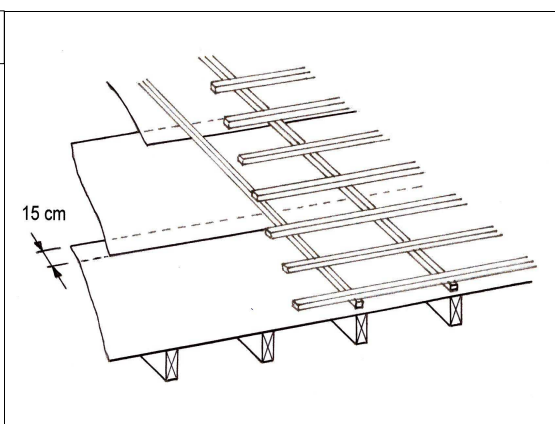
This Manual contains information as of January 2009.

Other applicaations of EUROTOP membranes

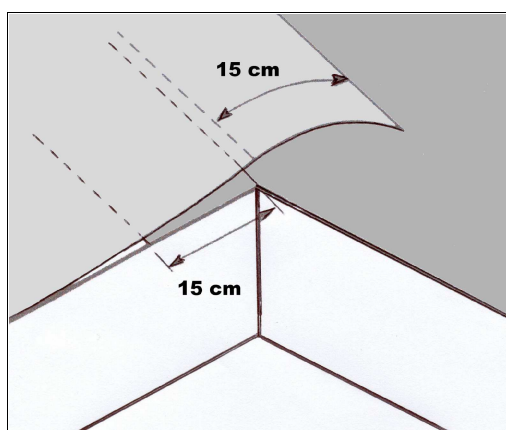
1. As an initial sealing, mounted to the battens, for roofs of low inclination (10°-19°). The requirements for proper installation, addressing the increased need for ventilation and leakproofness of the membrane layer, have to be taken into account when developing the roof design. (A separate Manual at www.fakro.com)
2. As a wind-proofing solution for wooden and metal stud walls. (A separate Manual at www.fakro.com)
3. As a spacing material for ventilation gaps and a protection for thermal insulation in ventilated roofs (under main roofing layer)
4. As a separator in roofs covered with flat metal sheets, which are joined together by means of seams (vertical, horizontal, etc.)
5. As a sealing solution for jointing PIR, PUR, OSB panels, boards, plywood, and other materials used for roofs and walls
6. As a sealing solution for roof tiles installed on a sheathing made of wooden boards, plywood or OSB. For example: slate, fiber-cement tiles, etc.
7. As a sealing solution and protection of thermal insulation layers in ceilings (wooden and concrete).
8. In each of these applications the installation of **EUROTOP** membranes should be performed appropriately.

Additional information at : www.fakro.com

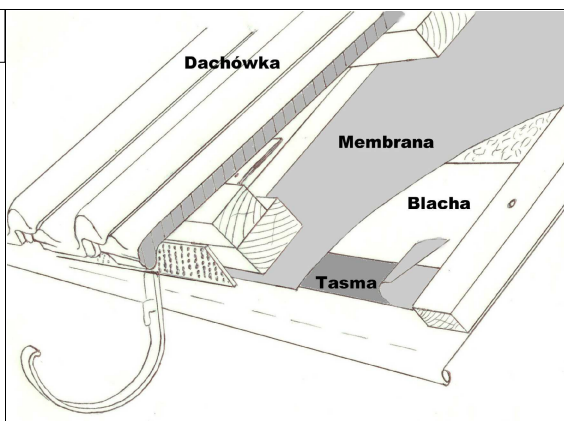
No. 1



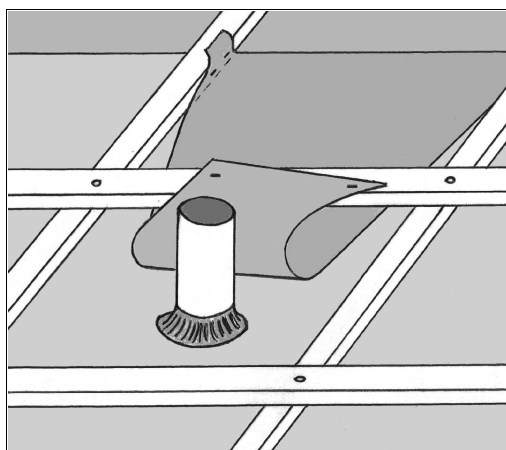
No. 2



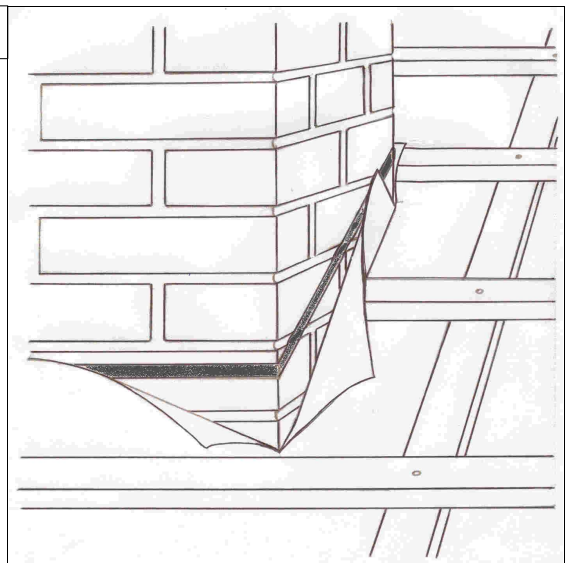
No. 3



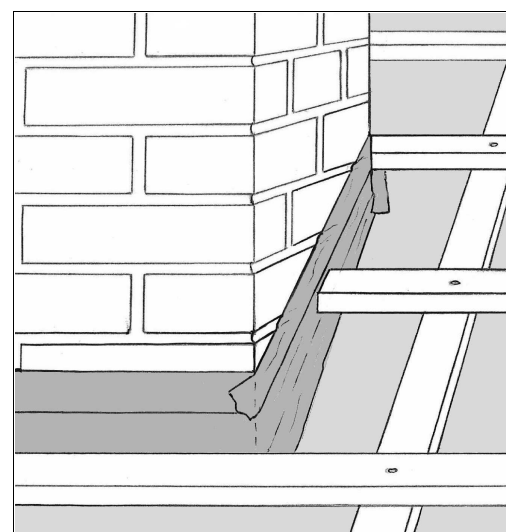
No. 4



No. 5



No. 6



No. 7

