

INSTALLATION INSTRUCTION OF mdm ROOF MEMBRANE

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A. Basic information.

1. Position the roof membrane tightly on the prepared surface.

Ventia Titanium mdm roof membrane can be laid both directly on the rafters (without the full boarding) and on the roofs with the full boarding.

2. The membrane is nailed to the rafters (or to the full boarding) using a stapler and roofing staples. The staples should be placed linearly along the rafters (also in the case of roofs with the full boarding).

3. After fixing the membrane, the counter battens should be fixed – using a self-adhesive sealing tape (counter batten tape) is recommended. The tape protects places punctured with the assembly staples.

The use of the counter battens allows to obtain the required ventilation space between the membrane and the target roof covering.

4. Highly vapour-permeable mbm roof membranes can be laid in direct contact with thermal insulation, always with the printed side up.

Highly vapour-permeable membranes should be laid with a slight tension.

5. The membranes should be laid maintaining a minimal overlap according to the marked line (a print on the foil). It is recommended to make an overlap of at least 15 cm (with less than 22° of the slope of the roof the size of the overlap should be increased to a min. of 20 cm).

6. Due to the required tightness of the partition, it is advisable to use the membranes with integrated glue strips – the products marked with the T/TT symbol (the alternative is the use of the tape connecting membranes and roof foils).

7. It is recommended to avoid the vertical joins of the foil. Any possible connections of two foils (eg. after finishing the roll) should be done very carefully – the edges of both strips of the membrane should be glued together, curled up, and fixed with the staples directly to the rafters.

8. The membrane should be protected from the direct exposure to the wood protection impregnates – the effect of these preparations may change technical parameters of the membrane. Always avoid laying the membrane directly onto the freshly impregnated elements.

9. The maximum permissible roof membrane exposure to UV rays has been strictly defined on the product label.

A longer exposure of the membrane to the sunlight may lead to a complete degradation of the functional layers of the foil.

NOTE! Please note that the requirement for covering the foil applies also to the surfaces protruding beyond the outline of the roof (the underside of the eaves).

Additionally – not covering the indoor membrane in the right time may cause its damage as a result of the diffuse sunlight.

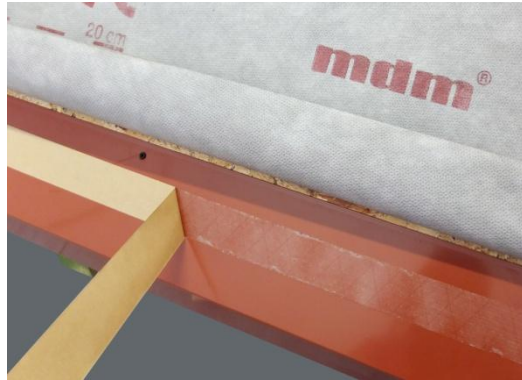
10. Any contamination of the membrane with petroleum substances (greases, oils, leaks from chain saws) must be strictly avoided.

11. Roof tile/steel roof tile must be cut outside the roof slope – filings may perforate the membrane (it may cause the loss of its water resistance).

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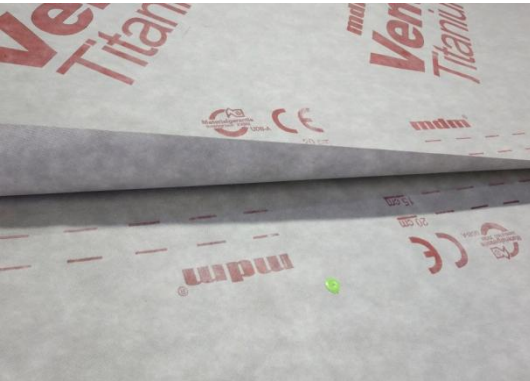
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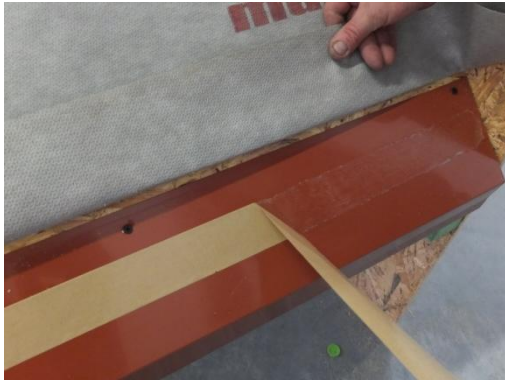


B. Eaves (Both protruding beyond the outline of the roof and flush with the inner wall).

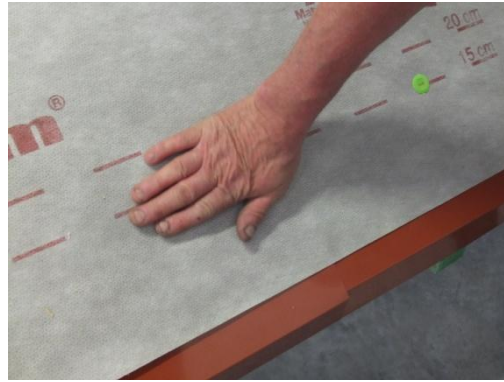
1. Prior to laying the membrane along the eaves, it is necessary to install verge trims.
2. Installation of the membrane should be started from the eave line (belts stretched parallel to the edge of the eaves). The bottom edge of the membrane must be tightly glued to the verge trim, e.g. using a butyl glue or double sided adhesive tape.
3. Laying the membrane perpendicularly to the eaves, that is along the rafters, is possible only in the case of modernized/renovated roofs (e.g. during the partial replacement of the roofing). The works are performed in the several stages on the width of 2-3 rafters (1.7-3.0 m).
4. In the case of the eaves protruding beyond the outline of the building – the full boarding (soffit or roof boards on the rafters) under the membrane should be made. Not covering the underside of the membrane may cause its damage (by the impact of the UV radiation).
5. After fixing the counter battens and the battens, the gutter hooks and the gutters should be fixed.



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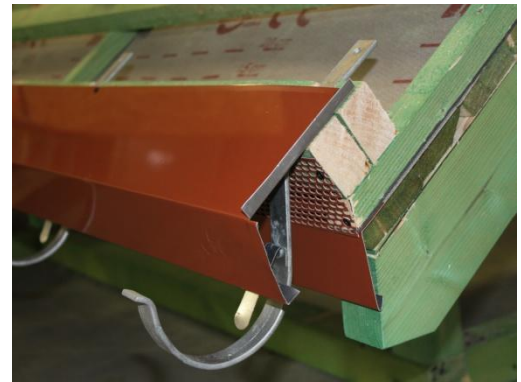
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C. Roof valley

1. Roof valley is a neuralgic place in every roof, particularly vulnerable to leakage, and it must therefore be protected with special care.
2. Roof valley, as well as the other concavities in the roof surface, in which the water can accumulate, must be protected by a triple layer membrane (it is recommended to lay an additional belt of the membrane along the whole valley – under the main belts of the foil).
3. The order of assembly of the roof membrane in the roof valley:
 - on the full boarding of the roof valley, along its entire length, place a bottom belt of the membrane;
 - after mounting the bottom (additional) belt of the membrane, place the main layers of the foil;
 - the main membrane belts should overlap the adjacent stretch (the minimum overlap of the membrane on the adjacent stretch should not be less than 25-30 cm; overlaps should be glued with double-sided adhesive tape);
 - additionally, above the membrane, place the metal valley, through which water flows down from the roofing (it is recommended to support the valley along its entire length using boards);
 - as a sealing of a connection between the valley and the default roofing, it is recommended to use sealing wedges or self-expanding tapes.

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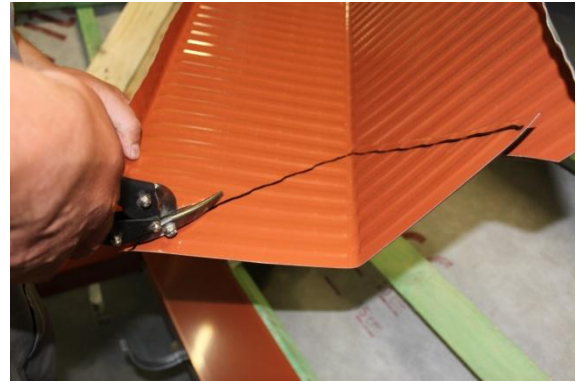
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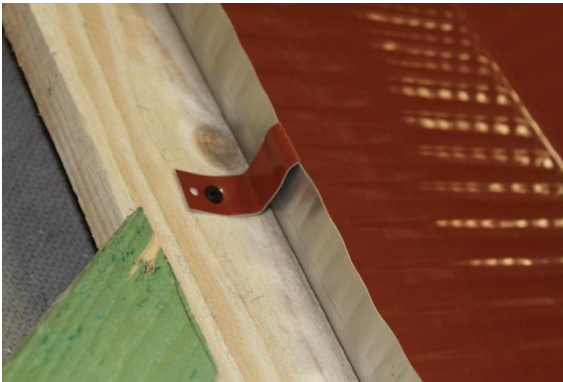
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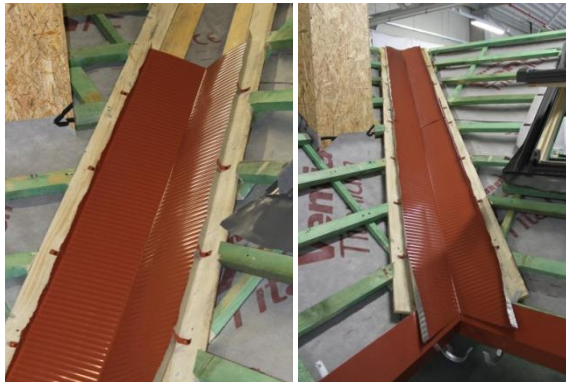
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D. Ridge and roof corner.

1. In the case of the highly vapour-permeable membranes do not apply the ventilation space in the ridge.
2. In the ridge part and on the corners of the roof, the membrane belts from both of the surfaces should be moved to the other side (maintaining the overlap of at least 25-30 cm width). Both membrane belts should be glued together/sealed – e.g. using double sided adhesive tape.
3. For better protection of the roof corners, it is recommended to lay the additional third membrane belt on the ridge.
4. Depending on the needs (and the type of the roofing) - the roof ridge vents or ridge ventilation tape should be installed in the corner and on the ridge.



E. Roof surface near the gable wall (Both the roof protruding beyond the outline of the building and the roof flush with the gable wall).

1. The membrane should be fixed to the last rafter with a stapler – using roofing staples. The spots nailed to the rafter should also be extra sealed. The staples should be placed linearly and covered with the counter batten. It is recommended to use the tape for counter battens.
2. In the case of the surface protruding beyond the outline of the building – the full boarding (soffit or roof boards on the rafters) under the membrane should be made. Not covering the underside of the membrane may cause its damage (by the impact of the UV radiation).
3. The manner of flashing should be adapted to the type of roofing (tile, metal tile, shingle, flat sheet, etc.). The roof flashing by the gable roof should be carried out in accordance with the guidelines provided by the Producer of the applied roofing.

F. Fire wall/roof in contact with the wall of another building.

1. The flashing by the wall in the contact with the roof slope (e.g. the fire wall, the wall of the dormer, etc.) should be performed with particular care for accuracy and precision.
2. The membrane should be strictly drawn upwards (a belt with a height of 10-15 cm) and glued to the wall, e.g. with the butyl glue.
3. After laying the default roofing, the additional flashing of the walls (e.g. with the roofing tapes or by means of the sheets of metal) should be performed.

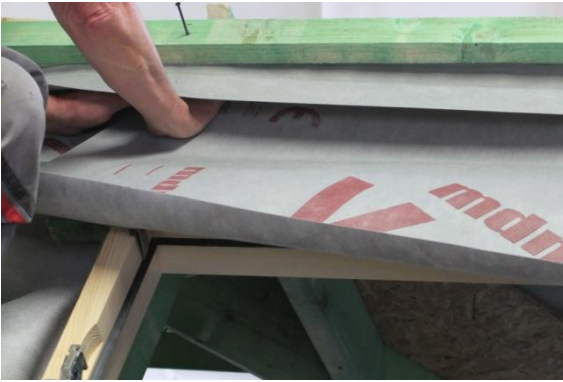


G. Roof hatchways and roof windows.

1. The flashing around the roof hatchways and the roof windows should be performed with particular care for accuracy and precision – in accordance with the guidelines provided by the Producer of the applied roof window/roof hatchway.
2. After the incision of the membrane (in the shape of the letter "X"), it should be drawn upwards (onto the height of at least 10-15 cm) and fixed with the staples to the roof battens (or to the window frame/roof hatchway). An excess of the membrane should be cut off.
3. A drainage gutter (made of metal or of the membrane), draining possible water of the rafters adjacent to the roof window/roof hatch should be made directly over the window/the roof hatchway.
4. A proper sealing flange should be mounted around the roof window/roof hatchways (a part supplied with the roof window/roof hatchway).



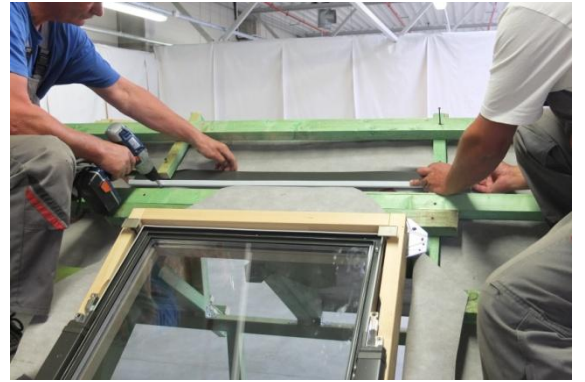
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H. Chimney.

1. As in the case of roof windows and roof hatchways – the flashing around the chimney and the roof windows should be performed with particular care for accuracy and precision.
2. The membrane should be drawn upwards (a belt with a height of 10-15 cm) and glued to the chimney e.g. using butyl glue. A drainage gutter (made of metal or of the membrane), draining possible water outside the rafters adjacent to the chimney should be made directly over the chimney.
3. After laying the default roofing the additional flashing of the chimney (e.g. with the roofing tapes for the chimney flashing or the sheets of metal) should be performed.

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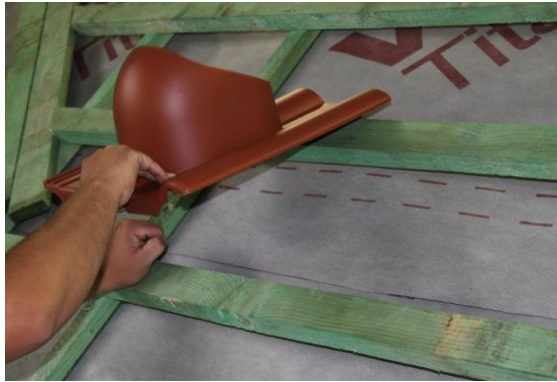
I. Ventilation chimneys, antenna masts, installations crossing the roof surface, etc.

1. In the places, in which the small elements (such as e.g. ventilation chimneys, antennas, etc.) pass through the roof surface, the membrane should be properly incised (a star-shaped incision). Triangular edges of the foil should be swivelled upwards and taped tightly with the sealing tape.
2. Above the places in which small elements (such as e.g. ventilation chimneys, antennas, etc.) pass through the roof surface, it is recommended to make the drainage gutter (made of metal or of the membrane – in the same manner as in the case of roof windows and roof hatchways).

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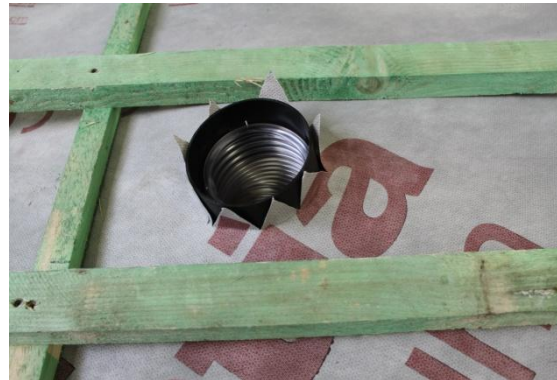
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J. Dormer.

1. Installation of the membrane on the dormer should be performed in an analogous manner – as in the case of the remaining part of the roof (maintaining the overlaps of the membrane in the roof valley and on the peak of the roof; with turning the membrane to the side wall of the dormer – onto the height of 10-15 cm; with mounting the membrane to the eaves belt, e.g. using butyl glue or double-sided adhesive tape, etc.).
2. The roof valley on both sides of the dormer should be tightly connected on its top.

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K. Reparations.

1. If damage of the membrane is accessible from the attic (ie. Non-usable attic / unfinished) - repair of the membrane can be carried out from the bottom.

Option 1:

The outer surface of a damaged roof membrane must be glued with reparation tape (edges of the reparation tape should stick out into the room). For such prepared surface reparation tape must be glued (this time from inside the room).

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Option 2:

Repair can be done by applying an additional membrane strip to the damaged roofing membrane from the bottom side. An additional lane of the roof membrane should be stuck over a previously installed roofing membrane. All edges must be glued with reparation tapes.

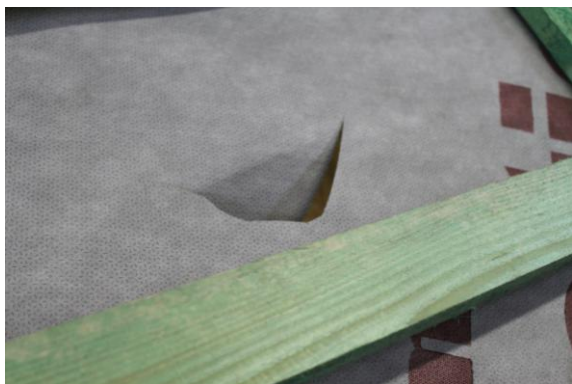


2. If damage of the membrane is not accessible from the attic (ie. furnished attic) - repair of the membrane can be carried out from the side of the roofing. The work should begin with dismantling parts of the roofing

Option 1 (only small wholes):

The outer surface of a damaged roof membrane must be glued with reparation tapes (edges of the reparation tape should stick out into the room). For such prepared surface reparation tape must be glued (this time from inside the room)

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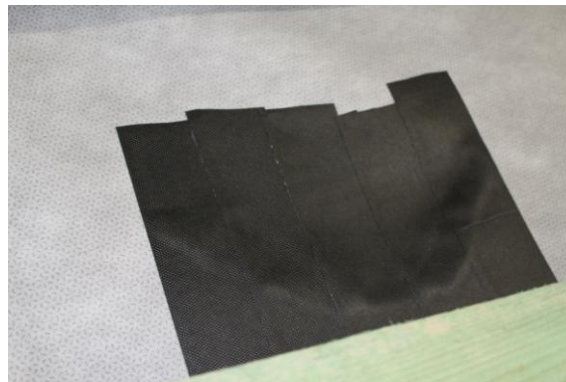
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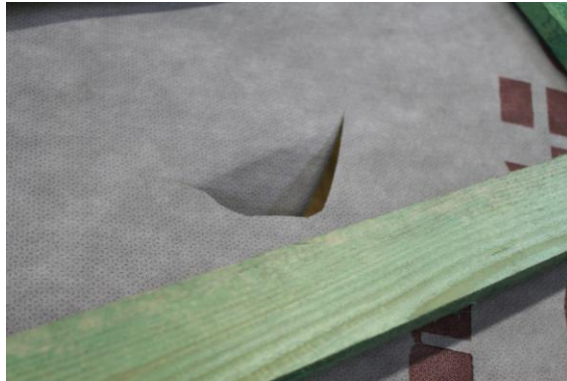
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Option 2 (recommended):

Repair can be done by applying an additional membrane strip to the damaged roofing membrane. The upper edge of membrane must be placed under the existing roof membrane (bet min. 15 cm). Side edges of an extra membrane strip should be moved out into counter batten and fasten with staples into counter batten. The upper and lower edge must be also glued with reparation tape.

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