



## TECHNONICOL ENVIRO FOREST

### Description:

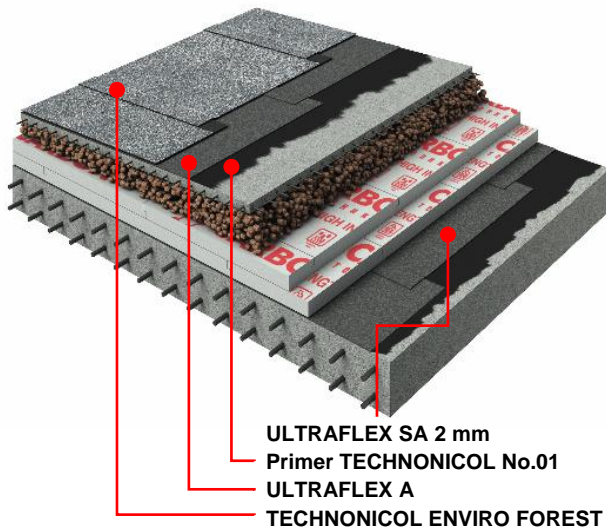
TECHNONICOL ENVIRO FOREST is a roofing and waterproofing SBS-modified bitumen membrane with slate, which is covered with special additives against the overgrowing of the flat roof with moss and vegetation. Slate contains copper elements with antifungal properties. During the rain or dew, the material enriches water with copper ions and inhibits the germination of mosses. Polymer film is used as an underside protection.

### Advantages:

- Inhibits the growth of mosses and lichens on the flat roof.
- Decreases the operating costs of the facility (roof maintenance costs).
- Has a unique copper color.
- Maintains the aesthetic appearance of the roof.

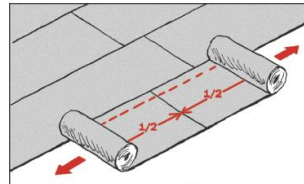
### General requirements:

- Rolls of the material should be stored indoors in a dry place in their original packaging and taken to the construction site ready to use.
- Keep the rolls upright and do not stack pallets.
- Falls or other mechanical impacts should be avoided during transportation and storage.
- The application surface must be cleaned of dust, debris, grease, leaves, oil and should not have gaps and cracks or other irregularities to ensure proper adhesion of the membrane.

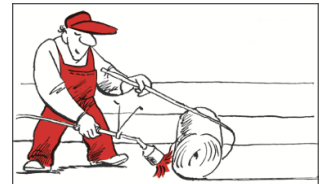


### Installation:

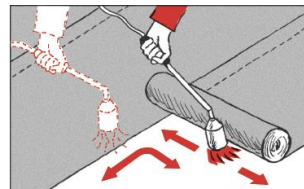
#### ■ FLAT ROOF



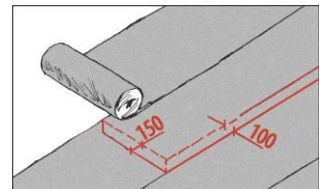
Roll out and align the membranes, then re-roll them tightly from both sides towards the centre.



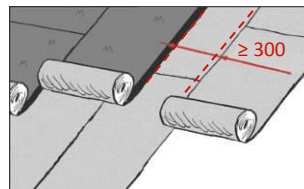
Heat the base and the bottom side of material at the same time to get a small bitumen flow.



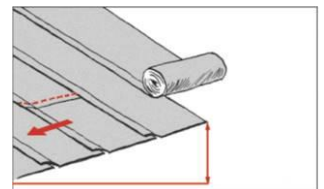
Heat the material and the base on all width of the roll, overlaps must be heated additionally.



Longitudinal overlaps should be 100 mm; end overlaps should be not less than 150 mm.



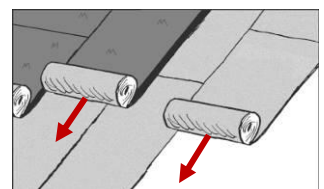
Cap sheet membrane should be positioned at a distance of min. 300 mm from overlaps of underlay membrane.



On roofs with a slope <15% membranes are rolled out perpendicularly to the water flow, ≥15% - along the water flow.



In places of end overlaps of the cap sheet membrane the top side of the material (with slate) must be additionally heated by torch. Then the slate is pressed into bitumen by spatula to increase the adhesion of the following roll.



**NOTE:** Cap sheet membrane is installed in the same way as underlay membrane. It is forbidden to install roll materials in a crossway.



Operating principle:



**Regular roofing material**

- Moss starts to grow in humid places with less sun.
- Flat roofs operational rules require regular removal of moss. Untrimmed moss layer shortens the service life of the roof.

**TECHNONICOL ENVIRO FOREST**

- Protects the roof from moss and lichens.
- Keeps aesthetic roof look.
- Reduces the cost of roof maintenance.
- Has an exclusive copper color.

Declared performance:

Essential characteristics	Test method	Performance	Essential characteristics	Test method	Performance
Protection of the top side	-	<b>slate with special additives</b>	Softening point, °C	ASTM D36	<b>≥ +110</b>
Protection of the bottom side	-	<b>polymer film</b>	Flexibility at low temperature, °C	EN 1109-1	<b>≤ -25</b>
Length, m	EN 1848-1	<b>≥ 8.0</b>	Flow resistance at elevated temperature, °C	EN 1110	<b>≥ +100</b>
Width, m	EN 1848-1	<b>≥ 1.0</b>	Watertightness at 0.3 MPa for 24 hours	EN 1928	<b>Pass</b>
Straightness	EN 1848-1	<b>≤ 10 mm / 5 m</b>	External fire performance	EN 13501-5	<b>Broof (t2)</b>
Mass per unit area, kg/m <sup>2</sup>	EN 1849-1	<b>5.0±0.25</b>	Reaction to fire	EN 13501-1	<b>Euroclass E</b>
Thickness, mm	EN 1849-1	<b>4.0±0.10</b>	Dimensional stability, %	ASTM D5147	<b>1.0</b>
Type of carrier	-	<b>polyester</b>	Adhesion of granules, %	EN 12039	<b>≤ 30</b>
Tensile properties: maximum tensile force L / T, N/50mm	ASTM D5147	<b>700±100 / 500±100</b>	Visible defects	EN 1850-1	<b>Pass</b>
Tensile properties: elongation L / T, %	ASTM D5147	<b>50±25 / 50±25</b>	Water vapor transmission properties	EN 1931	<b>μ=20000</b>
Tear resistance L / T, N	ASTM D4073	<b>180±30 / 180±30</b>	Dangerous substances	Does not contain dangerous substances	

Footnotes: L / T – Longitudinal / Transverse; NPD – No Performance Determined.

Shelf life if all storage requirements are met: 12 months from the date of production.