



TECHNONICOL ENVIRO AIR

Description:

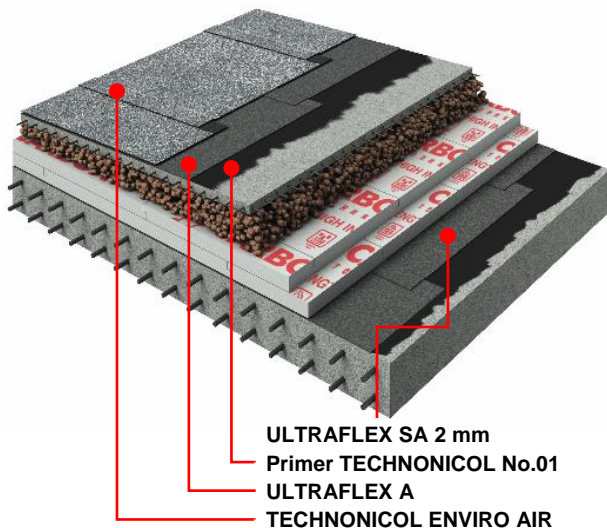
TECHNONICOL ENVIRO AIR is a roofing and waterproofing SBS-modified bitumen membrane with a special feature of air purification from harmful nitrogen oxides (NO_x). Hydrophobized slate is used as the top protective layer for ultraviolet exposure protection of polymer-bitumen binder. The slate is covered with titanium dioxide (TiO₂) and special additives. PE film is used as an underside protection.

Advantages:

- Actively influences the reduction of toxic NO_x gas in the air.
- The coating protects the material against the penetration of UV radiation and destruction of bitumen compound.
- Contributes to the destruction of organic contaminants on the surface (bird droppings, fungus spores, bacteria).

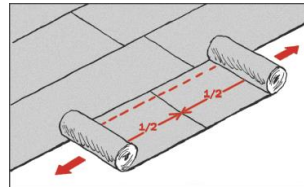
General requirements:

- 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.

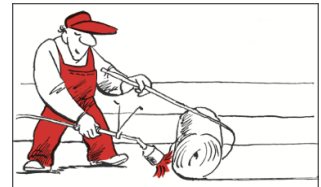


Installation:

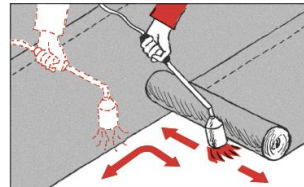
FLAT ROOF



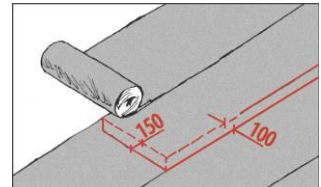
Roll out and align the membranes, then re-roll them tightly from both sides towards the centre.



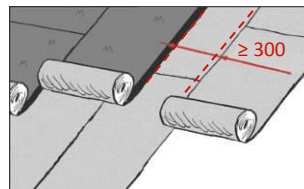
Heat the base and the bottom side of material at the same time to get a small bitumen flow.



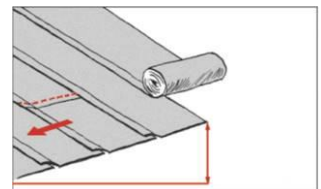
Heat the material and the base on all width of the roll, overlaps must be heated additionally.



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



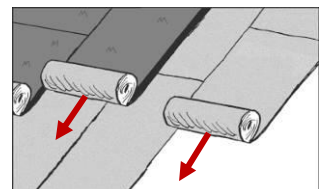
Cap sheet membrane should be positioned at a distance of min. 300 mm from overlaps of underlay membrane.



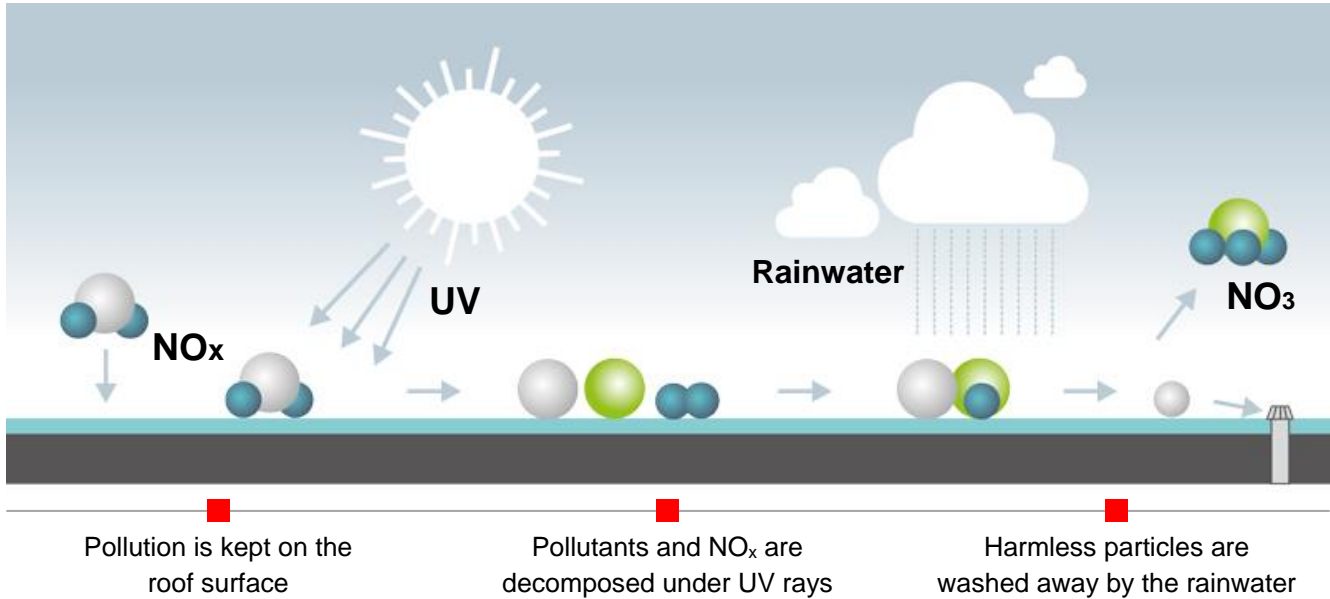
On roofs with a slope <15% membranes are rolled out perpendicularly to the water flow, ≥15% - along the water flow.



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:


The surface slate of the TECHNONICOL ENVIRO AIR membrane is coated with titanium dioxide and special additives, which functions as a catalyst in the process of changing the NO_x into harmless levels of nitrates. The process is activated when ultraviolet radiation from the sun hits the titanium dioxide particles, releasing energy for breaking down the NO_x particles. Polluted air passes over the TECHNONICOL ENVIRO AIR membrane where the NO_x are converted into harmless levels of water, carbon dioxide and nitrates, which are washed away by the rainwater.

Declared performance:

Essential characteristics	Test method	Performance	Essential characteristics	Test method	Performance
Protection of the top side	-	slate with special additives	Softening point, °C	ASTM D36	≥ +110
Protection of the bottom side	-	polymer film	Flexibility at low temperature, °C	EN 1109-1	≤ -25
Length, m	EN 1848-1	≥ 8.0	Flow resistance at elevated temperature, °C	EN 1110	≥ +100
Width, m	EN 1848-1	≥ 1.0	Watertightness at 0.3 MPa for 24 hours	EN 1928	Pass
Straightness	EN 1848-1	≤ 10 mm / 5 m	External fire performance	EN 13501-5	Broof (t2)
Mass per unit area, kg/m ²	EN 1849-1	5.0±0.25	Reaction to fire	EN 13501-1	Euroclass E
Thickness, mm	EN 1849-1	4.0±0.10	Dimensional stability, %	ASTM D5147	1.0
Type of carrier	-	polyester	Adhesion of granules, %	EN 12039	≤ 30
Tensile properties: maximum tensile force L / T, N/50mm	ASTM D5147	700±100 / 500±100	Visible defects	EN 1850-1	Pass
Tensile properties: elongation L / T, %	ASTM D5147	50±25 / 50±25	Water vapor transmission properties	EN 1931	μ=20000
Tear resistance L / T, N	ASTM D4073	180±30 / 180±30	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.