



TECHNONICOL ULTRATHANE ECO

One component moisture curing liquid polyurethane membrane

DESCRIPTION:

TECHNONICOL ULTRATHANE is a one component moisture curing liquid made up from pure polyurethane, which once cured forms a continuous elastic jointless membrane. It can be applied by brush, squeegee, roller, or airless spray.

The standard color is grey. Other colors are available on request.

AREA OF APPLICATION:

Waterproofing systems with or without reinforcement for:

- Roofs, terraces, and balconies.
- Tanks, channels, pipelines.
- Renewing old membranes.
- Parking and sport areas.
- Wet areas.
- Bridge decks, overpasses, and podiums.



ADVANTAGES:

- Easy to apply by means of brush, roller, or airless spray.
- High adhesion.
- High abrasion resistance.
- High elasticity and tensile strength.
- Water vapor permeable.
- Crack-bridging ability.
- Resistant to immersion into water.
- Ideal for outdoor application.
- Operating temperatures from -30°C to +80°C in air, (+200°C for short time).

PERFORMANCE AND KEY PROPERTIES:

Properties	Standard	Unit	Performance
Specific weight	EN ISO 2811-1	g/ml	1.45 ±0.07
Solid content	ASTM C836/C836M-12 Section 6.6 & ASTM C1250-05	%	≥ 89
Shore A Hardness	ASTM D2240-15(2021)	-	≥ 70
Tensile strength	ASTM D412-16(2021) Method A	MPa	≥ 3
Elongation at failure	ASTM D412-16(2021) Method A	%	≥ 600
Curing time			
- dry to the touch		Hours	≤ 12
- completely cured			≤ 24
Adhesion to concrete	ASTM D 7234	MPa	≥ 2
Watertightness	EN 1928:2000 Method		Pass

SURFACE PREPARATION:

- Careful surface preparation is essential for optimum finish and durability.
- The surface needs to be clean, dry and sound, free of any contamination, which may harmfully affect the adhesion of the membrane.
- Maximum moisture content should not exceed 5%.
- Substrate compressive strength should be at least 25MPa, cohesive bond strength at least 1.5MPa.
- New concrete structures need to dry for at least 28 days. Old, loose coatings, dirt, fats, oils, organic substances, and dust need to be removed by a grinding machine.
- Possible surface irregularities need to be smoothened.
- Any loose surface pieces and grinding dust need to be thoroughly removed.
- Clean concrete cracks, hairline cracks and joints of dust, residue, or other contamination. Fill all prepared cracks and joints with polyurethane sealant.
- Then apply a layer of ULTRATHANE, 200mm wide centered over all cracks and while wet, cover with a correct cut stripe of 100g/m² polyester geotextile. Press it to soak. Then saturate the geotextile with enough ULTRATHANE until it is fully covered. Allow to cure for 24 hours.

APPLICATION METHOD:

- Before applying ULTHRETHENE ECO, it is recommended to apply the TECHNONICOL EPOXY primer at the rate of 0.20-0.25g/m² to the entire substrate. In general, the primer should be used to promote adherence to the concrete surface and reduce the pinhole appearance, and leave it for 3-4 hours, while the surface is still tacky. The waiting time after the application of the primer should not exceed 24 hours.
- Prior to the application of ULTRATHANE ECO, stir it well.
- Substrate application temperature ranges from +5°C to +35°C (R.H.<85%).
- The material can be applied by brush, roller or airless spray.
- Always apply in two coats, perpendicular to each other for better result. The second coat can be applied after the first coat dried (around 24 hours), depending on the air humidity and ambient and surface temperature.
- Consumption of the material is 1.6-1.7 kg per 1 mm thickness of the cured coating.
- We recommend reinforcing of the entire surface, with 100g/m² polyester geotextile between the two coats.
- The applied coating is sensitive to UV radiation. When used in conditions of UV exposure, cured membrane should be protected with a screed or UV-resistant coating.
- After applying the material to a vertical surface, to ensure its mechanical bonding with the plaster, it should be sprinkled with dry quartz sand before it cures.
- After every use clean the tools with suitable thinner.



CONSUMPTION:

1.6-1.7 kg for the DFT of 1.0mm.

STORAGE:

12 months from date of production if stored properly in original, unopened sealed packaging, in a dry place at temperatures between +5°C and +35°C.

HEALTH AND SAFETY

- Respiratory protection: when handling or spraying use an air-purifying respirator.
- Skin protection: use rubber gloves, remove them immediately after contamination. Wear clean clothing. Wash hands thoroughly with soap and water after handling and before eating, drinking or smoking.
- Eye / Face: Wear safety goggles to prevent splashing and exposure to particles in the air.
- Waste: waste generation should be avoided or minimized. Incinerate under controlled conditions following local laws and national regulations.
- Vapor and atomized liquids are harmful. Use only in ventilated areas.
- Keep out of reach of children.
- Do not use near high heat or open flame.