



WHITECHEM PU MEMBRANE 450

1 – DESCRIPTION

WHITECHEM PU MEMBRANE 450 is a one component, easy to apply, specially formulated polyurethane based, elastic, crack bridging membrane. It cures to form a highly elastic, seamless, waterproof coating with excellent crack bridging properties. Its performance is maintained even at low temperatures.

2 – PROPERTIES

- Excellent Adhesion
- Easy application
- May be applied interior and exterior areas
- Crack Bridging
- Highly elastic
- Economical in use
- Silk/matt appearance
- Root penetration resistant

3 – APPLICATIONS

- Seamless coating on roofs and concrete structures, which can also be used as a waterproofing membrane on non-trafficked areas. Not suitable for permanent water immersion
- Can be applied on concrete, brickwork, asbestos cement, roof tiles, roofing felt etc.
- For areas with specific official performance requirements, please contact your us for advice on product selection

4 – INSTRUCTIONS

- The substrate must be clean, dry and free of all contamination such as dirt, oil, grease, and coatings etc. which hinder an adhesion.
- The substrate must be sound and of sufficient strength. If in doubt, apply a test area first.
- Weak concrete must be removed and surface defects such as blowholes and voids must be fully exposed.
- All dust, loose and friable material must be completely removed from all surfaces before application of the product, preferably by brush and/or vacuum.
- Whitechem PU membrane 450 must be thoroughly mixed for 3 min in order to achieve a homogenous mix using a low speed electric stirrer (300 - 400 rpm) or other suitable equipment.



- Over mixing must be avoided to minimize air entrainment.
- **By brush:** With a thick haired brush.
- **By roller:** With a solvent resistant, “non-fuzzy” roller.
- **By spray:** Airless spray equipment,(pressure: ~ 200 - 250 bar, nozzle: 0.38mm - 0.53mm, angle: ca. 50 - 80°).

5- PACKAGING

- 25 Kg metal can. White and Grey

6- STORAGE AND SHELF LIFE

- 9 months from date of production if stored properly in original, unopened and undamaged sealed packaging in dry conditions at temperatures between +5°C and +30°C.

7- SAFETY

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Material Safety Data Sheet containing physical, ecological, toxicological and other safety-related data.

8- RESTRICTIONS

- The substrate must be clean, dry and free of all contamination such as dirt, oil, grease, and coatings etc. which hinder an adhesion.
- The substrate must be sound and of sufficient strength
- For optimum application, do not allow liquid polyurethane waterproofing membrane to be heated by direct sunlight or other heat sources.
- During the curing process micro bubbles are formed. This is a product characteristic, which does not affect the protective properties. For this reason it should be ensured that the material is not applied at excessive film thicknesses in one layer. Excessive film thickness may create bubbles.
- The product can be applied by brush, roller or airless spray. Work well with a brush in difficult areas. Apply subsequent layers after the first layer has cured tack free.
- After polyurethane waterproofing membrane has been exposed to UV light, it will start to yellow slightly without losing its physical properties though. We recommend using Whitechem PU membrane T225, which is a top coat as a UV resistant membrane for improved aesthetical requirements.
- Layer thickness of system: approx. 0.6 mm. If necessary, additional coats can be applied. For a final layer thickness of 1.5 - 1.7 mm minimum 4 – 5 coats are required. The product can be over coated with itself.
- The elastic properties are maintained at temperatures down to -20°C and up to +80°C.



- Clean all tools and application equipment with thinner immediately after use. Hardened and/or cured material can only be removed mechanically.

9- TECHNICAL PROPERTIES

Chemical Base	: Solvent Base Polyurethane	
Density	: 1.35 ± 0.03 gr/ml	(ASTM D1875)
Appearance/Color	: Liquid, White or Grey Colors	
Surface Curing	: 8-12 hrs (23°C and %50 R.H.)	(ASTM C679)
Viscosity	: 5500±1000 cps	
Ready for foot traffic*	: 24-36 hrs (23°C and %50 R.H.)	(ASTM C679)
Full Cure	: 7 days (23°C and %50 R.H.)	
Shore A Hardness	: 55	(ASTM D 2240)
% Elongation	: ≥ % 450	(DIN EN ISO 527)
Solid Content	: Weight ~% 84 (23°C and %50 R.H.)	
Tensile Strength	: 3 N/mm ²	(DIN 53504)
Heat Resistance	: -20°C and +80 °C	
Application Temperature	: +5 °C and +35 °C	

* With Care. Only for inspection or for application of the next layer, not for permanent traffic.