



AquaPure PU 500

Solvent-Free Polyurethane Coating for Potable Water Tanks

Product Description

AquaPure PU 500 is a premium-grade, two-component, solvent-free polyurethane protective coating specifically designed for the internal lining and protection of potable water tanks, reservoirs, and water-retaining structures. The coating cures to form a seamless, hygienic, and highly durable membrane with excellent adhesion to concrete and steel substrates.

AquaPure PU 500 provides long-term protection against water penetration, corrosion, abrasion, and chemical attack while maintaining the integrity and quality of stored drinking water. Its solvent-free composition makes it suitable for enclosed areas and environmentally sensitive applications.

Product uses:

- Potable drinking water tanks
- Concrete water reservoirs
- Steel water storage tanks
- Water treatment facilities
- Desalination plants
- Irrigation water tanks
- Municipal water infrastructure
- Pump stations
- Process water containment structures

Properties

- 100% solids, solvent-free formulation
- Suitable for potable water storage facilities
- Excellent adhesion to concrete and steel
- Seamless waterproof protective lining
- Outstanding abrasion resistance
- Excellent chemical resistance
- Low odor during application
- High build application capability
- Flexible and crack-bridging properties
- Long service life with minimal maintenance
- Easy to clean hygienic surface
- Excellent corrosion protection
- Designed for use in contact with potable water according to BS 6920 / EN 12873-1
- Excellent hydrolytic stability
- Resistant to prolonged water exposure
- Maintains adhesion under permanent immersion conditions
- Low water absorption (<1%)



TECHNICAL PROPERTIES

<i>Appearance/Color</i>	High Gloss / RAL Color Card
<i>Density:</i>	1.37 kg/liter
<i>Volume Solids:</i>	100 %
<i>VOC Content</i>	0 g/L
<i>Theoretical spreading rate:</i>	4 m ² / ltr (3 m ² /kg) for 250 micron DFT
<i>Recommended DFT:</i>	500 - 1000 micron
<i>Tensile strength:</i>	≥ 18 MPa
<i>Adhesion to Concrete:</i>	> 2.5 MPa
<i>Elongation to Break:</i>	≥ 80%
<i>Water Absorption:</i>	< 1%
<i>Crack Bridging Capacity:</i>	≥ 0.5 mm at 500 micron DFT ≥ 1.0 mm at 1000 micron DFT
<i>Shore D Hardness:</i>	65 - 75
<i>Service Temperature:</i>	-20°C to +80°C
<i>Application Temperature:</i>	Between 5°C to 35°C
<i>Relative Humidity:</i>	< 85%
<i>Substrate Moisture Content:</i>	< 5%

CHEMICAL RESISTANCE

- Fresh water(Excellent)
- Sea water (Excellent)
- Chlorinated Water (Excellent)
- Dilute Hydrochloric Acid (10%) (Good)
- Diesel Fuel (Good)
- Gasoline (Fair)
- Acetone (Not recommended)
- Ester-Based Solvents (limited)
- Potable water (Excellent)
- Sodium Chloride Solutions (Excellent)
- Dilute Sulfuric Acid (10%) (Good)
- Sodium Hydroxide (10%) (Good)
- Mineral Oils (Excellent)
- Xylene (limited)
- Ketones (limited)
- Strong Oxidizing Chemicals (limited)

For exposure to concentrated chemicals, consult TTC Technical Services.

Application Details

<i>Application method:</i>	Brush / Roll / Airless Spray- Metal trowel
<i>Mixing Ratio:</i>	4 component A + 1 component B (by weight)
<i>Thinner:</i>	Never thin the product

Surface Preparation:

Concrete Surfaces

The substrate must be structurally sound, clean, dry, and free from laitance, oil, grease, dust, curing compounds, and contaminants.

- Concrete compressive strength: Minimum 25 MPa
- Pull-off strength: Minimum 1.5 MPa
- Surface preparation by abrasive blasting, grinding, or shot blasting
- Defects and voids should be repaired using suitable repair mortar



Steel Surfaces

Steel surfaces shall be abrasive blast cleaned to:

ISO 8501-1 Sa 2½ Near White Metal Finish

The prepared surface must be clean and free from rust, oil, grease, and contaminants before coating application.

PRECEDING COAT:

- Top Floor 600 SF For concrete surfaces
- Top Floor 650 MT for concrete surfaces
- Topxy Metal Primer 1500 for metal primer

Shelf life & Storage:

12 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.

Safety:

For information and precautions on the safe handling, transportation 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.

Legal Notice:

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