

TIKI AQUASEAL PU-HT

1K Pure Polyurethane Based Elastomeric Waterproofing Coating

DESCRIPTION

TIKI AQUASEAL PU-HT is premium liquid applied single component moisture cured pure polyurethane based high tensile strength elastomeric waterproofing liquid membrane coating for long lasting waterproofing and protection of various surfaces.

It cures by reaction with atmospheric moisture to give a seamless film which is rubbery and elastic.

It is a ready to use material which can be applied by brush, airless spray or roller without the need to mix with other components or heat before application.

TIKI AQUASEAL PU-HT is available in Horizontal and Vertical grades for Horizontal and Vertical applications and conforms to ASTM C836 and ASTM C898.

ADVANTAGES

- Cold applied - no need for heating - safe to use.
- Elastomeric and high crack bridging ability.
- Forms seamless monolithic membrane.
- Superior durability and thermal stability.
- High tensile strength.
- Good adhesion to primed surfaces.
- Good resistance to water, salts, seawater, mild acids, alkalis, and saline atmosphere.
- Excellent low temperature flexibility & performance.
- Good resistance to root growth.

USES

TIKI AQUASEAL PU-HT is ideal for waterproofing following areas under suitable protection layer:

- Roofs and terraces.
- Terrace garden, planter box and podium landscape.
- Old and new concrete surfaces, both horizontal and vertical.
- Below grade walls, retaining walls, foundations, pile caps, & areas demanding waterproofing & protection.

APPLICATION DATA

| Properties | Values |
|-------------------------|------------------------------------|
| Over coating time | 12 to 24 hours |
| Full cure | 7 days |
| Service temperature | -20°C to +80°C |
| Theoretical coverage* | ≈1.50 Kg./m ² @1 mm DFT |
| Solid content by weight | ≥84 % |
| Density | 1.25 ± 0.10 gm/cm ³ |

*Coverage is approximate and it depends upon the site conditions and surface porosity at the time of application.

PROPERTIES OF APPLIED PRODUCT

| Properties | Values | Test Standard |
|--|-------------------------|---------------|
| Tensile strength | ≥4 MPa | ASTM D412 |
| Elongation | ≥300 % | ASTM D412 |
| Shore A Hardness | ≥50 | ASTM D2240 |
| Static crack bridging | >2mm | ASTM C836 |
| Adhesion to primed concrete, Pull-off strength | ≥2 MPa | ASTM D4541 |
| Hydrostatic pressure resistance at 5 bar | Water Penetration - Nil | BS EN 12390-8 |
| Puncture resistance | >300 N | ASTM E154 |

APPLICATION INSTRUCTIONS

SURFACE PREPARATION

New concrete should be ≥28 day old and sound with moisture content <5%.

Remove all laitance, foreign matter, dirt, oil, grease and loose particles using conventional methods.

All existing cracks and expansion joints shall be treated with **TIKISEAL PU** range of polyurethane sealant.

Provide 75mmx75 mm coving at H-V junctions using polymer modified mortar modified with **DANOCRET AR** and using **DANOCRET AR** as bond coat.

SURFACE PRIMING

Apply two coats of **TIKI PRIME PU** Polyurethane based clear primer @ 8 to 10 m²/ltr., per coat on well prepared substrate, covering entire area uniformly. (coverage may vary depending upon the nature and texture of substrate). Allow the primer to dry.

Refer TDS of **TIKI PRIME PU** for technical and application details.

MATERIAL PREPARATION

After opening the packaging, any skin / film formation on surface of material should be scrapped off and removed.

Stir the contents of **TIKI AQUASEAL PU-HT** using slow speed mixer (approx. 400 rpm) fitted with an agitator ensuring homogenous mix.

After stirring, allow induction period of 5-10 minutes for entrapped air to escape.

NOTE: Use entire material within 4 hours of opening the container. As the product is moisture curing, do not use part quantity, otherwise skin formation may occur in remaining unused material.

APPLICATION

TIKI AQUASEAL PU-HT is applied in two coats** by brush /roller / airless spray @ 0.75 Kg./m² per coat. Second coat is applied perpendicular to dried first coat. The 2 coats shall form 1mm d.f.t.

Allow first coat to dry for 12 to 24 hour before proceeding for second coat.

For specific project requirement multiple coats of **TIKI AQUASEAL PU-HT** can be applied @ 0.75 Kg./m².

Depending upon project requirement/specification, reinforcing layer of 40gsm polyester scrim **ARMADURA IP40 can be embedded in between the two coats to provide additional strength to the treatment, the reinforcing layer embedded in first coat while first coat is wet.

PROTECTION OF WATERPROOFING ON HORIZONTAL SURFACE

The applied waterproofing coating on horizontal surface should be protected from U.V and pedestrian traffic with screed concrete.

Over the fully cured waterproofing coating, spread separation layer of 200 gsm non-woven polyester geotextile **DANOFELT PY I-200**, maintaining overlap of 50mm in both directions.

Over the separation layer, concrete screed of M20 admixed with integral waterproofing liquid **DANOMIX LW** @ 200ml per 50 Kg cement shall be laid to provide a slope of 1 in 100 for storm water run-off. The minimum thickness of screed at any point shall not be less than 50 mm. The screed shall have nominal reinforcement of 6mm at 300 c/c or shall be done with SFRC (steel fibre reinforced concrete).

PROTECTION OF WATERPROOFING ON VERTICAL SURFACE (Parapet Wall of Terrace Areas)

The applied waterproofing coating on parapet wall of terrace area should be protected from U.V damage.

Fine sand @ 200 to 300 g/m² should be sprinkled over the final coat of waterproofing, when the final coat is still tacky to facilitate plastering. Allow waterproofing coating to attain full cure. Finally protect vertical application with at least 15mm cement-sand plaster admixed with integral waterproofing liquid **DANOMIX LW** @ 150ml per 50 Kg. of cement.

PROTECTION OF WATERPROOFING ON VERTICAL SURFACE (Basement Wall / Retaining Wall)

The applied waterproofing coating should be protected from damage during backfilling operations by protecting with HDPE dimple protection boards **DANODREN** / XPS board **DANOPREN** / bituminous protection board **TIKIDAN PRO-BOARD**.

CLEANING

Immediately after application of **TIKI AQUASEAL PU-HT**, use solvent for cleaning application tools.

SUPPLY

TIKI AQUASEAL PU-HT is supplied in 20Kg., or 25 Kg. pack size. It has a shelf life of 12 months when stored under the covered shed in sealed condition away from heat, sunlight, rains, moisture and humidity.

STORAGE

TIKI AQUASEAL PU-HT must be stored above 5°C. Store under the shed and protect from extremes of temperature, heat, direct sunlight, rains, moisture, humidity, flames, sparks and children.

SAFETY PRECAUTIONS

As with all chemical products, care should be taken during use and storage of **TIKI AQUASEAL PU-HT**.

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