

TIKI AQUASEAL PU-S



1K Moisture Cured UV Resistant Elastomeric PU Waterproofing Coating

DESCRIPTION

TIKI AQUASEAL PU-S is ready to use single component high solid aliphatic polyurethane based cold applied moisture cured elastomeric liquid membrane for waterproofing.

TIKI AQUASEAL PU-S forms a seamless monolithic membrane, which cures in presence of atmospheric moisture to form a UV resistant, seamless, monolithic waterproofing membrane.

It is a versatile product fit for waterproofing and protection, available in Horizontal and Vertical grades for Horizontal and Vertical applications.

TIKI AQUASEAL PU-S conforms to ASTM C836 and ASTM C898.

ADVANTAGES

- Elastomeric and high crack bridging ability.
- Forms seamless monolithic membrane.
- 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.
- Good resistance to U.V rays.
- Excellent outdoor durability.

USES

TIKI AQUASEAL PU-S is ideal for waterproofing:

- Roof slabs and terraces.
- Terrace garden, planter box and podium landscape.
- Old and new surfaces, both horizontal and vertical Tunnels.
- Various geo-metric shape structures such as silos, domes, façades, etc.

APPLICATION DATA

Property	Value
Application	Brush / Roller / Airless Spray
Tack free time	>6 hours
Solid content	90 ± 2 %
Extension after heat aging	6.4mm with no cracking
Theoretical Coverage*	1.4 Kg./m ² @ 1mm d.f.t
Service temperature range	- 40°C to + 70°C
U.V Resistance	Excellent
Final cure time	24 to 36 hours
VOC Content	100 ± 20 gm/Kg.
Chemical stability	Resistant to mild acids & alkalis
Swelling in water	Nil

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

APPLICATION INSTRUCTIONS

SURFACE PREPARATION

Remove all loose gravel, dirt, oil, grease and foreign matter by jet of dry air and clean the surface mechanically or by grinding to make it smooth before application. Cracks should cut to V-shape and filled using cementitious mortar modified with **DANOCRET AR**. Provide 75mmx75mm coving at H-V junctions using polymer modified mortar modified with **DANOCRET AR** and using **DANOCRET AR** as bond coat. Ensure that the moisture content in the prepared surface does not exceed 5% immediately before application of **TIKI AQUASEAL PU-S**.

MATERIAL PREPARATION

Prior to use, **TIKI AQUASEAL PU-S** should be stirred using slow speed mixer (approx. 400 rpm) fitted with an agitator ensuring homogenous mix.

Prior to mixing, any skin/film formation on top surface in container should be scrapped off and removed.

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

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

SURFACE PRIMING

Priming is not normally required on good quality substrates.

In case of porous surface apply **TIKI PRIME PU** Polyurethane based clear primer @ 8 to 10 m² per ltr., per coat on well prepared substrate, covering the 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.

The 2 coats shall form 1mm d.f.t. (without reinforcing layer).

Allow first coat to dry for 10 to 12 hour before proceeding for second coat.

For heavy duty application, apply third coat of **TIKI AQUASEAL PU-S** @ 0.6 to 0.7 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. The 2 coats shall form 1.2mm to 1.3mm d.f.t. (with reinforcing layer).

Allow at least 36 hours for curing before allowing foot traffic / carrying further work.

On vertical area, the waterproofing treatment should be extended up to 200 mm and terminated into the groove cut on parapet wall, groove filled with polymer modified mortar modified with **DANOCRET AR**.

Fine sand @ 200 to 300 g/m² should be sprinkled over the application of final coat on vertical application, when the final coat is still tacky to facilitate plastering. Finally protect vertical application with at least 15mm cement-sand plaster.

Water ponding test can be carried after 7 days of curing at ambient temperature.

PROTECTION OF WATERPROOFING (Optional)

Before laying protection screed, over fully cured waterproofed surface, spread separation layer of 200 gsm non-woven polyester geo-textile **DANOFELT PY I-200**, maintaining overlap of 50mm in both directions.

Over the separation layer, concrete screed of M20 shall be laid to provide a slope of 1 in 100 for storm water run-off. This screed will also provide required protection to waterproofing system.

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).

PROPERTIES OF CURED PRODUCT

Property	Value	Standard
Elongation	>500 %	ASTM D412
Tensile strength	1.2 ± 0.10 N/mm ²	ASTM D412
Shore A Hardness Shore OO Hardness	12 to 16 50 to 60	ASTM D2240
Crack bridging at low temperature at (-)9 °C	≤1.5mm	ASTM C836
Adhesion to primed concrete, Pull-off strength	2.5 ± 0.20 N/mm ²	ASTM D4541

CLEANING

Immediately after application of **TIKI AQUASEAL PU-S** use xylene / aromatic solvent for cleaning application tools.

SUPPLY

TIKI AQUASEAL PU-S is supplied in 20Kg., pack. It has a shelf life of 12 months when stored under the covered shed in sealed condition.

STORAGE

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

SAFETY PRECAUTIONS

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

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