

TIKI AQUASEAL PU-SHE



1K Moisture Cured Polyurethane Elastomeric Waterproofing Coating

DESCRIPTION

TIKI AQUASEAL PU-SHE is ready to use single component, high solid, high tensile and high elongation moisture cured modified polyurethane based cold applied elastomeric waterproofing liquid membrane coating.

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

TIKI AQUASEAL PU-SHE 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.

USES

TIKI AQUASEAL PU-SHE is ideal for waterproofing following areas under tiles or concrete protection:

- Roof slabs and terraces.
- Terrace garden, planter box and podium landscape.
- Old and new surfaces, both horizontal and vertical

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 PU40** 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.

MATERIAL PREPARATION

Prior to use, **TIKI AQUASEAL PU-SHE** 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.

APPLICATION

TIKI AQUASEAL PU-SHE is applied in two coats** by brush/roller/airless spray @ 0.6 to 0.7 Kg./m² per coat, while primed surface is tacky. Second coat is applied perpendicular to dried first coat.

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-SHE** @ 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

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).

APPLICATION DATA

Tack free time	8 to 10 hours
Service temperature range	-40°C to +70°C
Final cure time	30 to 50 hours
Color	Black
Theoretical coverage*	1.20 to 1.40 Kg./m ² @1 mm DFT
Specific gravity @23°C	1.25 ± 0.05
Solid content	> 90 %
VOC content	70 to 90 gm/Kg.
Loss of weight	6 to 10 %
Swelling in water	Nil

*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
Elongation	700 ± 50 %	ASTM D412
Shore A Hardness	50 ± 5	ASTM D2240
Crack bridging at low temperature @(-)9°C	≤ 1.5mm	ASTM C836
Adhesion to primed concrete, Pull-off strength	2.50 ± 0.50 N/mm ²	ASTM D4541
Tensile strength	2.0 ± 0.20 N/mm ²	ASTM D412
Extension after heat aging	6.4 mm (No cracking)	ASTM C836

CLEANING

Immediately after application of **TIKI AQUASEAL PU-SHE**, use water for cleaning application tools. Once dried, use suitable solvent for removing dry material.

SUPPLY

TIKI AQUASEAL PU-SHE is supplied in 25Kg., pack. It has a shelf life of 12 months when stored under the covered shed in sealed condition.

STORAGE

TIKI AQUASEAL PU-SHE 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-SHE**.

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