

TIKI AQUASEAL PU-AHS



1K Aqua Based Polyurethane Elastomeric Waterproofing Coating

DESCRIPTION

TIKI AQUASEAL PU-AHS is ready to use single component, high solid water borne and U.V resistant pure 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-AHS conforms to ASTM C836 and ASTM D6083.

ADVANTAGES

- Suitable for application on damp surface having less than 5% surface moisture.
- 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.
- Suitable for application on asphaltic surfaces.
- Excellent low temperature flexibility and performance.

USES

TIKI AQUASEAL PU-AHS is ideal for waterproofing:

- Roof slabs, terraces, drywalls, corrugated roofs.
- Terrace garden, planter box, podium landscape.
- Old and new surfaces, both horizontal and vertical
- Structures exposed to marine/saline atmosphere.
- Structures with complex geometry like dome, silo, arches, parabolic, chimney, corrugated sheet, etc.
- Underground structures and bridges.

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 .

MATERIAL PREPARATION

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

SURFACE PRIMING

Priming is not normally required on good quality substrates.

For porous substrates, dilute **TIKI AQUASEAL PU-AHS** with potable water in 1:1 by weight and apply as primer @ 2 to 3 m²/Kg., uniformly covering the entire surface. Allow primed surface to touch dry.

APPLICATION

TIKI AQUASEAL PU-AHS is applied in two coats** by brush/roller/airless spray @ 1Kg./m² per coat, while primed surface is tacky. Second coat is applied perpendicular to dried first coat. The 2 coats shall form 1.0mm to 1.1mm 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-AHS @ 1 Kg./m²**.

**Depending upon project requirement/specification, reinforcing layer of 50gsm polyester scrim 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 1.3mm to 1.5mm 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 the parapet wall, the groove filled with polymer-modified mortar modified with **DANOCRET AR**. 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

Touch dry	20 to 30 minutes
Service temperature range	-20°C to +100°C
Final cure time	7 Days
Color	Black/White
Theoretical coverage*	1.85 Kg./m ² @1 mm DFT
Application temperature	>5°C
Specific gravity @30°C	1.5 ± 0.10
Solid content	> 80 %
Solar reflective index	
Black	Not Applicable
White	109
UV stability	Excellent
VOC content, gm/Kg.	Nil
p ^h	>7
Viscosity @30 °C	6500 ± 1500 cps
Elastic recovery @ 150% elongation	>70%

*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	400 ± 50 %	ASTM D2370
Shore A Hardness	>50	ASTM D2240
Crack bridging at low temperature	No Cracking	ASTM C836
Adhesion to primed concrete, Pull-off strength	0.40 N/mm ²	ASTM D4541
Tensile strength	1.4 ± 0.20 N/mm ²	ASTM D2370
Extension after heat aging	6	ASTM C836
Water Absorption	<5 %	IS:13826 Part 3

CLEANING

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

SUPPLY

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

SAFETY PRECAUTIONS

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

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