

DANOCOAT I-500

Spray Applied Elastomeric Hybrid Polyurea Waterproofing Coating

DESCRIPTION

DANOCOAT I-500 is two components solvent free plural spray applied elastomeric aromatic hybrid polyurea waterproofing coating, which cures very rapidly in few seconds to form a highly durable elastomeric waterproofing and protection film exhibiting a high degree of performance, abrasion and chemical resistance.

The elastomeric film of **DANOCOAT I-500** exhibits outstanding elongation and toughness, abrasion, impact and chemical resistance, tensile and tear strength and adhesion to the substrates, making it highly suitable for use on concrete, ceramics, steel, metal sheet, aluminum, PVC, asphalt membranes, PU foam (density of 40 to 50 Kg/m³), wood, etc.

The two components (Resin & Hardener) of **DANOCOAT I-500** is applied using plural high-pressure projection equipment for two components with in-built heating arrangement with mixing relation of 1:1 by volume, such as Graco Reactor E-XP2, H-XP2 or Range Evolution G-30H, G-250H.

ADVANTAGES

- Excellent waterproofing and leak resistance.
- Excellent bonding and adaptable to complex geometry of support.
- Good resistance to chemical spillages and hydrolysis.
- Fast work execution without any inconveniences.
- Abrasion resistance - suitable for vehicular and pedestrian traffic.
- Resistant to penetration by roots.
- High build - application of high thickness in single coat.
- Free of solvent.
- Aesthetic colours - grey, black and tan shades.
- High elasticity and crack bridging ability.
- Instant curing and drying in few seconds.

USES

DANOCOAT I-500 is designed to waterproof and protect various substrates against water ingress, abrasion and corrosion encountered in buildings, industries and infrastructure projects, which covers to include:

- Roofs and terraces
- Retaining Walls.
- Pavements and parking deck
- Bridges under the asphalt
- Linings of sewage & waste water treatment plants
- Internal and external pipelines
- Secondary containment and retaining areas
- Swimming pools and pond liners
- Marine and offshore installations
- Benches, staircases and other areas
- Lining truck beds

APPLICATION INSTRUCTIONS

SURFACE PREPARATION

Metals: Clean the metal surface as per SSPC SP-1. Abrasive blast cleaning of metal is done as per SSPC SP-10. The metal surface must be dry and dust free before applying primer. Apply polyurethane based metal primer **TIKI PRIME PUHS** @ 6 to 10 m²/Kg. Allow primer to cure for 8-12 hours.

Concrete: Clean the concrete surface thoroughly as per ASTM D 4258. Abrasive blast cleaning of concrete surface is done as per ASTM D 4259. The prepared concrete surface should be dry and free from surface condensation and rising moisture, surface porosity, honeycomb etc. Temperature of concrete substrate must be at least 3°C above dew point temperature.

Over the clean concrete surface, suitable Epoxy based primer recommended by TIKIDAN should be applied depending upon the site conditions.

If the time is lapsed for more than 24 hours after application of primer, abrade the primed surface to provide mechanical key to subsequent coats.

APPLICATION

DANOCOAT I-500 is applied after the applied primer is dry, using high pressure projection equipment for two components with heating arrangement and a 1:1 mixing by volume.

Before starting the application, check for the adequate weather and substrate conditions:

- Ambient temperature -5°C to +50°C
- Relative humidity <85%
- Substrate surface moisture <4%
- Temperature of the support, at least 3°C above the dew point temperature

The liquid membrane **DANOCOAT I-500** must be applied continuously, making homogenous distribution of the product on primed surface at recommended rate to build required thickness. On irregular supports, the application rate per m² must be increased to maintain recommended thickness. During application, the spray pressures between resin and hardener components should be balanced. The difference must not be greater than 10-15%. If this difference is greater, than the application may result in blisters, pinholes and soft or brittle films or ultimate failure.

The applied coating of **DANOCOAT I-500** can be left exposed to U.V, however, on exposure there could be change in colour and slight deterioration in performance parameters. For additional protection and extended durability, a U.V resistant protective topcoat of DANOCOAT PAS 600/DANOCOAT PAS 700 or as recommended by TIKIDAN should be applied over the applied DANOCOAT I-500 for exposed conditions (as per the site requirement).

CLEANING

Immediately after application of **DANOCOAT I-500**, use suitable solvent for cleaning application tools.

APPLICATION DATA

Mix Ratio - Part A : Part B (Resin : Hardener)	1:1 by Volume
Thickness at Stipulated Application Rate	0.50 to 1mm (Primed Steel) 1 to 3mm (Primed Concrete)
Theoretical Coverage*	1 m ² /ltr. @1mm thickness
Relative Humidity	<85 %
Tolerance to Surface Moisture	Up to 4%
Open Time	6 seconds

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

PROPERTIES OF CURED MATERIAL

Properties	Values
Elongation	≥500 %
Tensile Strength	15 ± 1 N/mm ²
Water Permeability, DIN 1048	Nil at 7 bar of hydrostatic pressure
Water Vapour Permeability	≤0.4 gm/m ² /day
Shore A Hardness	≥80

SUPPLY

The components of **DANOCOAT I-500** is supplied in 200 liter M.S barrels consisting of Component-A: 225 Kg. and Component-B: 206 Kg. **DANOCOAT I-500** has a shelf life of 6 months in the unopened containers.

STORAGE

DANOCOAT I-500 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.

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