iKOTE™ PU 40

POLYURETHANE DISPERSION-BASED HYBRID WATERPROOFING COATING

DESCRIPTION

iKote PU40 is a hybrid Polyurethane dispersion-based coating which cures to form a highly flexible layer to protect the substrate from the passage of vapor and water. iKote PU40 coating is durable and is resistant to UV degradation. iKote PU40 is low on VOC and is free from all hazardous ingredients like tar, asphalt and solvents which make it suitable for application in confined spaces.

RECOMMENDED APPLICATIONS

- Foot trafficable.
- Metal profile sheets.
- Wet areas, toilets, shower areas.
- On top of Polyurethane insulation foam.
- Concrete roofs, terraces and balconies, domes.

FEATURES & BENEFITS

- High resistance against the ingress of water and vapor.
- Low VOC: Environmentally friendly and free from tar and asphalt.
- Excellent mechanical properties.
- UV Stable: Tough and resilient and resistant to degradation.
- Good crack bridging ability.
- Excellent adhesion to most building substrates.
- Easy to apply.
- Non hazardous.

TECHNICAL PARAMETERS

Physical Properties	Test Method	Value
Color	-	White/Grey
Density,[g/l]	ASTM D 1475	1.00±2
Solid content, [%]	ASTM D 1353	60±2
VOC, [g/l]	USEPA 24	<10
Touch dry time, [mins]	-	25
Initial Cure time, [mins]	-	60
Pure Cure time, [Hrs.]	-	24
Tensile strength, [N/mm²]	ASTM D 412	≥2
Elongation, [%]	ASTM D 412	500
Tear strength [N/mm²]	ASTM D 624	≥6
Solar reflectance, [%] (White)	ASTM E 1549	≥75
Shore A Hardness	ASTM D 2240	45
Water Vapor transmission, [perms]	ASTM E 96	6
Adhesion strength [N/mm²]	ASTM D 4541	≥1.15
Crack bridging ability, [mm]	ASTM C 836	≥2.00
Application temperature, [°]	-	5 to 45
Service temperature, [°C]	-	-5 to 70

All values are subjected to 5 to 10% variations.
Other colors are available on request.

Application procedures may vary slightly depending on site conditions. Recommended guidelines for the application of the coating system is as follows:

SUBSTRATE PREPARATION

Concrete Surface: Loose and unsound concrete should be chipped off and repaired with a suitable polymer-modified repair mortar. Sharp edges and protrusions should be leveled off. Use

of a suitable industrial grade detergent or degreasing compound is recommended to remove all contaminants like oil, grease, wax etc. from the substrate.

Metal Surface: Traces of rust should be removed. Completely rusted surface shall be replaced. Ensure all joints are riveted properly.

PRIMING

A primer coat is recommended when applying the coating over porous substrates. The priming coat can be prepared in the site by mixing iKote PU40 with clean potable water in the ratio of 1:1. Apply the primer coat on the surface and allow it to dry. Highly porous substrates my require two layers of primer. A recoat of the primer would be required if the topcoat application gets delayed by more than 24hours.

APPLICATION

Prior to application, the pail should be mixed thoroughly with a proprietary paddle mixer to ensure a homogenous consistency of the material. iKote PU40 can be applied with a soft bristled brush or roller. On large areas, the coating can be applied with an airless spray. Apply the first coat of undiluted material at a coverage rate of 1Lt/m²/coat to get a Dry Film Thickness of 0.8mm. Application of the second coat must be done only when the previous coat dries off completely. Second coat application should be done at right angles to the first coat and at the same coverage rate, to ensure a full unbroken coating to the substrate. Whilst the first coat is still in a wet condition, a non-woven fabric should be embedded into the coating in all corner joints and pipe penetrations as a reinforcing strip. Membrane can be embedded into the first coat whilst it is still in a wet condition. Allow the coating to cure fully (7days) after which it can be exposed to traffic.

COVERAGE

Brush/Roller application – 1L/m² to achieve DFT of 0.8mm thickness.

Spray application – 1 1L/m² to achieve DFT of 0.7mm thickness.

RECOMMENDED THICKNESS

- Wet areas – primer coat and two coat application at 0.70 lt./sq.mtr per coat.
- Damp proofing – Primer coat and one coat application at 0.70 lt./sq.mtr per coat.
- Areas subjected to hydrostatic pressure – Pls refer to our detailed method statement of application.

LIMITATIONS

- iKote PU40 should not be applied when the ambient temperature and material temperature is >45°C. Doing so will affect the open time.
- Application should not be done when rainfall is imminent.
- Do not apply over light weight concrete or foam concrete.

CLEANING

Clean all tools immediately with water after use. Hardened materials can be removed mechanically only.

SUPPLY

20 LTR. pail.

STORAGE

Store under cover, out of direct sunlight and protect from extreme temperatures. The shelf life is up to 12 months when stored as per recommendations and in unopened conditions.

HEALTH & SAFETY

Caution should be exercised while applying the product as it is with any other construction chemical. Protective gloves and safety glasses should be used when handling these products. If accidental eye contamination occurs, wash thoroughly with plenty of water and seek medical advice. If contact with skin occurs, it must be removed before curing takes place. For more details, refer to the product MSDS for information.

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