KingCoat ® PE100

Two component high solids coal tar epoxy resin coating system.

DESCRIPTION

KingCoat PE100 is a two component amine cured coal tar epoxy. The product has excellent chemical resistance properties which makes it particularly suitable for sewage treatment plants and for aggressive environments. KingCoat PE100 is suitable for use on concrete, steel and asphalt surfaces.

APPLICATIONS

KingCoat PE100 is designed for use in applications such as:

- Waterproofing applications on concrete substrates.
- Lining of manholes, pipes, jetties, piers, ducting and foundations waterproofing.
- Sewage treatment plants.
- Protection of concrete and steel structures submerged in sea water or exposed to tidal or splash zones.

ADVANTAGES

- Excellent adhesion to concrete, steel and asphalt surfaces.
- Cost effective; does not require primer.
- Suitable for use as a waterproof coating.
- High chemical resistance.
- Does not support bacterial growth.
- High abrasion resistance.
- Can be applied to green concrete.

METHOD OF USE

Substrate Preparation

Concrete surfaces:

The Substrate should be sound, clean and free from contamination. Surface Laitance should be removed by sand or grit blasting and/or water jetting. All exposed blow holes should be filled with epoxy paste using KingRep EP10.

Steel surfaces:

All surfaces should be grit blasted to reach a bright finish meeting the requirement of Swedish Standard SA 2 1/2.

Mixing

To ensure proper mixing, a mechanically powered mixer or drill fitted with suitable paddle should be used. Stir the content of each component separately to disperse any settlement. Add the entire content of the base to the hardener and mix for 3 minutes and until a uniform colour and consistency are achieved.

TECHNICAL PROPERTIES @ 25º:

Mixed density:	1.0 g/cm³
Solid contents:	91 ± 2%
Colour:	Black
Abrasion & impact resistance: BS 3900 - E3	Passed
Bond strength: ASTM D4541	≥ 1.5 MPa
Pot life:	3 - 4 hr @ 25°C 1 - 2 hr @ 35°C
Re-coatable time:	24 hr @ 25^0 C Within 12 hr @ 35°C
Full cure:	After 7 days @ 25°C
Water absorption: ASTM D570	< 0.1%
Service temperature:	-10 to 55^0 C
VOC: ASTM D2369	< 150 g/ltr

Application

KingCoat PE100 can be applied by brush; roller and airless spray machine. The first coat should be applied to obtain a continuous uniform coating. The second coat should be applied within the over coating time to achieve the maximum adhesion between coats.

Notes:

- *The area where KingCoat PE100 is applied must be protected from any contact with water for at least 30 hours after application. Otherwise discolouration may occur. Also, in closed areas where the relative humidity is very high, good ventilation is needed and precaution must be taken to insure the full cure of the material.*
- *KingCoat PE100 must not be applied over other coatings, but can be applied on top of itself within the over coating times (mentioned above).*
- *For temperatures around 5ºC, the unmixed material needs to be heated before the application. Heating is done by storing packs in a heated area.*

CLEANING

All tools should be cleaned immediately after application using KINGKRETE Solvent. Hardened materials must be cleaned mechanically.

PACKAGING

KingCoat PE100 is available in 18 kg packs.

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COVERAGE

Approximately 0.22 kg/m²/coat.
Two coats should be applied to achieve 400 microns dry film thickness.

STORAGE

Shelf life is 1 year when stored under cover, out of direct sunlight and protected from extremes of temperature. Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging. For specific storage advice consult KingKrete's Technical Services Department.

HEALTH AND SAFETY

As with all chemical products, care should be taken during use and storage to avoid contact with eyes, mouth, skin and foodstuffs. Treat splashes to eyes and skin immediately. If accidentally ingested, seek medical attention. Reseal containers after use. Use in well ventilated areas and avoid inhalation.

NOTE

Field service, where provided, does not constitute supervisory responsibility. For additional information contact your local KingKrete representative. KingKrete Inc. reserves the right to have the true cause of any difficulty determined by accepted test methods.

QUALITY AND CARE

All products originating from KingKrete's Qatar facility are manufactured under a management system independently certified to conform to the requirements of the quality standard ISO 9001.

* Properties listed are based on laboratory-controlled tests.

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Chemical Resistance after full cure ASTM D1308 (after 7 days immersion in the below chemicals)	
Organic acids	
Acetic Acid 10%	SS
Lactic Acid 10%	SS
Oleic Acid sat.	R
Citric Acid 25%	R
Vinegar 10%	R
Inorganic Bases	
Sodium Hydroxide 50%	R
Ammonia Solution 10%	R
Potassium Hydroxide 50%	R
Aqueous Solutions	
Sodium Chloride sat	R
Tap water	R
Chlorinated water	R
Dead sea water	R
Solvents	
White spirit	SS
Xylene	SS
Toluene	R
Oils & Fuels	
Benzyl alcohol	SS
Brake fluid	SS
Engine oil	R
Diesel	R
Kerosene	R
Detergents & Soaps	R
Inorganic Acids	
Sulphuric Acid 25%	SS
Phosphoric Acid 20%	R
Hydrochloric Acid 10%	R
Nitric Acid 10%	SS

R: Resistant
RS: Resistant with slight discoloration
SS: Slight softining

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