KingCoat ® PE200

Two component solvent free coal tar epoxy resin coating system.

DESCRIPTION

KingCoat PE200 is a two component, solvent free, amine cured coal tar epoxy. The product has excellent chemical resistance properties which makes it particularly suitable for aggressive environments such as sewage treatment plants and sewage manholes. KingCoat PE200 is suitable for use on concrete and steel surfaces.

APPLICATIONS

KingCoat PE200 provides chemical and abrasion resistance to prevent corrosion of concrete surfaces. Typical applications include:

- Seawater tanks, channels and intakes.
- Manhole linings.
- Sewage and effluent plants.
- Chemical processing areas.
- Building foundations waterproofing.
- Jetties, piers and docks.

*Not suitable for surfaces in contact with drinking water.

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 grit blasting 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.

TECHNICAL PROPERTIES

Colour:	Black
Mixed density:	1.55 ± 0.05 g/cm³ @ 25ºC
Mixing ratio:	1:1
Pot life:	50 – 80 min @ 25ºC 25 – 35 min @ 35ºC
Tack free time:	3 - 4 hr @ 25ºC 2 - 3 hr @ 35ºC
Over- coating time:	8 – 10 hr @ 25ºC 6 – 8 hr @ 35ºC
Full cure:	7 days @ 25ºC 4 days @ 35ºC
Water permeability: DIN 1048 2 bars @ 100 days	Nil
Salt spray test: BS 1881/124 : 1988 Over 1000 hr	Nil @ 200 microns thickness
Bond strength: BS 1881, Part 207	> 2 MPa (concrete Failure)
Water absorption: ASTM D570	< 0.1%
VOC:	≤ 50 g/ltr (Comply with LEED)

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. Mix both hardener and base together for 3 minutes in a separate container and until uniform colour and consistency is achieved.

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APPLICATION

KingCoat PE200 can be applied by brush and roller. 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 the two coats.

Notes:

For hot climate application, the following guidelines must be adopted as a prudent working regime:

- *The unmixed materials should be stored in a cool (preferably temperature controlled) environment, avoiding exposure to direct sunlight.*
- *The mixing and placing equipment should be kept cool; shade protection should be arranged if necessary. It is especially important to keep cool, the equipment surfaces which will come into direct contact with the material itself.*
- *Application in the middle of the day should be avoided and must not be carried out under direct sunlight.*
- *For hand application, it should be ensured that sufficient operatives are available to complete the application within the pot life of the material.*
- *If application is carried out in cold weather (below 15ºC), the materials should be stored in a heated building and only removed immediately before use.*
- *Accelerated heating methods must not to be used under any circumstances.*

CLEANING

All tools should be cleaned immediately after application using DPC solvent. Hardened materials must be cleaned mechanically.

PACKAGING

KingCoat PE200 is available in 14 kg packs (9 litre).

COVERAGE

Approximately 0.33 kg/m^2 per coat to achieve 200 microns DFT.

Chemical Resistance after full cure ASTM D1308 (after 7 days immersion in the below chemicals)	
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
Oils & Fuels	
Benzyl alcohol	R
Brake fluid	R
Engine oil	R
Diesel	R
Kerosene	R
Detergents & Soaps	R
Inorganic Acids	
Sulphuric Acid 25%	R
Nitric Acid 10%	R
Lactic Acid 10%	SS
HCL 10%	SS
Phosphoric Acid 20%	R
Vinegar 5%	SS

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

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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 manufacturing facilities 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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NOTE	Field service where provided does not constitute supervisory responsibility. Suggestions made by KingKrete Inc. either orally or in writing may be followed, modified or rejected by the owner, engineer or contractor since they, and not KingKrete Inc. are responsible for carrying out procedures appropriate to a specific application.

KingKrete North America
www.kingkrete.com