

# KingCoat® EP500HR

Two component heat resistant epoxy modified cementitious coating.

## DESCRIPTION

KingCoat EP500HR is a solvent free, heat resistant epoxy modified cementitious coating for the protection of concrete, mortar and stone surfaces as well as steel.

## APPLICATIONS

KingCoat EP500HR is designed for applications such as:

- 🔧 Heavy duty protective coating for concrete surfaces.
- 🔧 Protection of concrete sea water channels.
- 🔧 Water treatment plants.
- 🔧 Boiling water tanks and water stations.
- 🔧 Desalination plants.

## ADVANTAGES

- 🔧 Can be applied without primer.
- 🔧 Mold resistant.
- 🔧 Solvent free.
- 🔧 High build.
- 🔧 Abrasion resistant.
- 🔧 Corrosion resistant.
- 🔧 Resist thermal shock and freeze-thaw cycles.
- 🔧 Withstands temperatures up to 130°C.

## STANDARDS

KingFloor EP25 complies with BS 476, Part 7: 1987, Class 1 Spread of Flame.

## METHOD OF USE

### Surface Preparation

#### Concrete surfaces:

Surface to be coated should be sound and free from oil, grease, mold and fungus, and any loose materials.

#### Steel surfaces:

Steel surfaces should be grit blasted to reach a bright finish meeting the SA21/2 standard. KingCoat EP500HR should be applied as soon as possible after blasting to avoid rust forming.

### Mixing

Base and hardener components should be stirred separately. Add the contents of the hardener container to the base container and mix using slow speed mixer or a slow speed drill fitted with suitable paddles. Mixing should continue for 3 minutes or until a homogeneous mix is obtained.

## TECHNICAL PROPERTIES @ 25°C:

Colour:	Grey
Solids by weight:	100%
Mixed density:	1.6 ± 0.05 g/cm <sup>3</sup>
Pot life:	60 min @ 25°C
Touch dry:	6 - 8 hr
Re-coatable:	8 - 20 hr
Full cure:	7 days
Bond strength: ASTM D4541-85	3.5 MPa (concrete failure)
Bond strength after 200 hours water boil: ASTM D4541-85	2 MPa (concrete failure)
Water absorption: ASTM D570	< 0.1%
Physical effects after 600 hours water boil:	No cracking, chalking, softening, blistering or debonding

## APPLICATION

Two coats of KingCoat EP500HR should be applied. The product can be applied using brush, roller and can be spray applied. First coat should be applied uniformly onto the surface at 200 microns thickness.

The second coat should be applied similarly to the first coat between 8 hours and 20 hours (@ 25°C) after applying the first coat.

For exposed areas, it is recommended that KingCoat EP500HR is covered by a polyurethane protective coating from KingCoat range of products.

## CLEANING

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

## PACKAGING

KingCoat EP500HR is available in 5 kg packs.

## COVERAGE

Approximately 1 kg/3 m<sup>2</sup> per 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

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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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## Occasional Spillage. Chemical Resistance after full cure (7 days @ 25°C), ASTM D1308 (Spot - test @ 1 hr)

Organic acids	
Oleic Acid sat.	R
Citric Acid 25%	R
Vinegar 5%	R
Inorganic bases	
Sodium Hydroxide 50%	R
Ammonia Solution 10%	R
Potassium Hydroxide 50%	R
Aqueous solutions	
Sugar Solution sat.	R
Sodium Chloride sat	R
Tap water	R
Distilled water	R
Chlorinated water	R
Dead sea water	R
Urea Solution 80%	R
Oils & Fuels	
Benzyl alcohol	SS
Brake fluid	R
Engine oil	R
Diesel	R
Kerosene	R
Detergents & Soaps	R
Inorganic acids	
Sulphuric Acid 25%	R
Phosphoric Acid 20%	R
Hydrochloric Acid 32%	RS
Nitric Acid 10%	R

R: Resistant

RS: Resistant with slight discoloration

SS: Slight softening

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### STATEMENT OF RESPONSIBILITY

The technical information and application advice given in this KingKrete Inc. publication are based on the present state of our best scientific and practical knowledge. As the information herein is of a general nature, no assumption can be made as to a product's suitability for a particular use or application and no warranty as to its accuracy, reliability or completeness either expressed or implied is given other than those required by law. The user is responsible for checking the suitability of products for their intended use.

### 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.