

# KingFloor® EP50

High build solvent based epoxy resin coating.

## DESCRIPTION

KingFloor EP50 is a high build, hard wearing, solvent based, epoxy resin coating, designed to provide a hard, semi-gloss coating to concrete floors, walls, ceilings, steel and other substrates.

## APPLICATIONS

KingFloor EP50 is used as protective, decorative, high chemical resistance and hard wearing coating system for floors or walls in many applications including:

- 🔧 Aircraft hangars.
- 🔧 Car parks.
- 🔧 Soft drink and beverage production areas.
- 🔧 Dairies production areas.
- 🔧 Show rooms.
- 🔧 Production, maintenance and assembly areas.
- 🔧 Warehouses.
- 🔧 General food processing and manufacturing plants.

## ADVANTAGES

- 🔧 Can be used on concrete, steel, galvanized steel substrates.
- 🔧 High chemical and mechanical resistance.
- 🔧 Available in a wide range of attractive colours.
- 🔧 Cost effective.
- 🔧 Easy application.

## METHOD OF USE

### Substrate Preparation

The substrate must be clean, dry, even, dense and free from oil, grease, dust and other contaminants. A clean surface will ensure maximum adhesion between the substrate and the coating.

Concrete floors must have a minimum compressive strength of 25 N/mm<sup>2</sup> and a maximum concrete relative humidity of 80% (max. moisture content of 4%), relative humidity can be measured using a hygrometer. Concrete relative humidity should be less than 80% for concrete 28 days old or more.

### Surface Preparation

Unsound layers and contaminated concrete surfaces must be prepared using mechanical surface removing equipment.

## TECHNICAL PROPERTIES

Mixed density:	1.40 g/cm <sup>3</sup> @ 25°C
Pot life:	> 90 min @ 25°C > 45 min @ 35°C
Minimum time between coats:	12 hr @ 25°C 6 hr @ 35°C
Maximum time between coats:	24 hr @ 25°C 12 hr @ 35°C
Dry film thickness:	150 microns/coat
Initial cure:	24 hr @ 25°C 12 hr @ 35°C
Full curing:	10 days @ 25°C 7 days @ 35°C
Bond strength: ASTM D4541-95	> 2 MPa (concrete failure)
Water absorption: ASTM D570	< 0.6%
Taber abrasion resistance: (1000 g, 1000 cycle) ASTM D4060, weight loss CS17 wheel	100 milligram

Acid etching can be used only in well ventilated areas. Areas deeply contaminated by oil or grease, such areas should be treated by hot compressed air.

## MIXING

To avoid inconsistent workability and pot life, make sure that the materials to be used are stored in shaded area and protected from extremes of temperatures, for at least 24 hours prior to application.

Prior to mixing, stir individual components of the Base and Hardener. Add the entire content of the Hardener container to the Base and mix thoroughly for at least 3 minutes.

*Note: In certain cases the Base of the product can be supplied uncoloured and needs the addition of a colour pack. In such cases, mix the components of the colour pack and Base for 2 minutes, then add the entire content of the Hardener to the mixture and mix thoroughly for 3 minutes.*

## COATING

Use brush or lambs wool roller, or airless spray machine to apply the mixed KingFloor EP50 onto the

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prepared surfaces. Apply 2 coats of KingFloor EP50 at 2.9 m<sup>2</sup>/kg/ coat, second coat should be applied at a right angle to the first coat.

The second coat may be applied as soon as the first coat has initially dried. Drying time will depend on the substrate and the ambient conditions. If the over coating time is exceeded the first coat must be abraded with sand paper prior to the application of the second coat. Adequate ventilation must be provided to ensure that necessary drying and curing of the material is achieved.

## REMARKS

- ☐ KingFloor EP50 should not be applied at temperatures below 10°C or where ambient relative humidity exceeds 85%.
- ☐ KingFloor EP50 should not be applied onto surfaces known to suffer from rising damp.
- ☐ In case of spray applications, airless spray machines should be used.

## CLEANING

Tools and equipment can be cleaned with KINGKRETE Solvent. Dried KingFloor EP50 may be removed mechanically.

## PACKAGING

KingFloor EP50 is available in 5 kg packs (3.6 litre) and 20 kg packs (14.3 litre).

## COVERAGE

The coverage rate is 2.9 m<sup>2</sup>/kg/coat to achieve dry film thickness of 150 microns/coat.

## 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.

## Occasional Spillage.

Chemical Resistance after full cure (7 days @ 25°C), ASTM D1308 (spot test @ 1 hr)

### Organic acids

Lactic Acid 10%	R
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	R
Xylene	R
Toluene	R
Acetone	R

### Oils & Fuels

Benzyl alcohol	R
Brake fluid	RS
Engine oil	R
Diesel	R
Kerosene	R
Detergents & Soaps	R

### Inorganic acids

Sulphuric Acid 25%	R
Phosphoric Acid 20%	RS
Hydrochloric Acid 10%	R
Nitric Acid 10%	R

R: Resistant

RS: Resistant with slight discoloration

SS: Slight softening

## 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.



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## 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.

® = Registered trademark of the KingKrete-Group in many countries.

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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.