

# KingFloor<sup>®</sup> EP50T

Heavy duty epoxy topping for floor surfaces.

## DESCRIPTION

KingFloor EP50T is a three-pack solvent free, epoxy-based topping that provides floor surfaces with a seamless, hygienic and cosmetically attractive finish. KingFloor EP50T is applied by trowel and can be covered and laid to falls and has a very good durability towards pedestrian and vehicular traffic.

It also has very good resistance towards many of the chemicals commonly found in an industrial environment (consult our Technical department for further details). KingFloor EP50T has a finish that provides very good slip resistance and can be supplied in a natural colour and variety of colours, it is also available in a decorative quartz finish (consult our Sales Department for details).

## APPLICATIONS

KingFloor EP50T is used to provide a hygienic, dense and extremely hard wearing surface for concrete floors for a wide range of applications such as:

- 📦 Heavy industry factories.
- 📦 Aircraft hangars.
- 📦 Paint workshops.
- 📦 Steel works.
- 📦 Dairies.
- 📦 Chemical factories.
- 📦 Oil refineries.
- 📦 Freezers and refrigerated storage with temperatures down to -25°C (consult KINGKRETE's technical department for more details).

## ADVANTAGES

- 📦 Extremely hard wearing system.
- 📦 Solvent free.
- 📦 Non-slip.
- 📦 Available in a wide range of attractive colours.
- 📦 Available in a decorative quartz finish.
- 📦 Resist a wide range of chemicals, consult KINGKRETE technical department for more details.

## STANDARDS

KingFloor EP50T complies with EN 13813, SR-B2.0-AR0.5-IR10.

## TECHNICAL PROPERTIES @ 25°C:

Mixed density:	2.10 ± 0.05 g/cm <sup>3</sup>
Pot life:	1 hr
Compressive strength: BS 6319, Part 2 ASTM C579	≥ 85 MPa @ 7 days
Flexural strength: BS 6319, Part 3 EN 13892-2	≥ 30 MPa @ 7 days
Tensile strength: BS 6319, Part 7	≥ 15 MPa @ 7 days
Shore D hardness: ASTM D2240	≥ 80 @ 7 days
Foot traffic:	After 24 hr
Vehicular traffic:	After 72 hr
Chemical curing:	7 days
Bond strength on C35/40 concrete: ASTM D4541	≥ 3.5 MPa @ 7 days (substrate failure)
Maximum wear depth: BS EN 13892-4	0.03 mm
Impact resistance: ISO 6272-2	> 20 N.m
VOC:	≤ 20 g/ltr

## 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 by using hygrometers.

Concrete relative humidity should be less than 80% for concrete of 28 days old or more, for low W/C ratio concrete floors, 80% hygrometer reading or less can be achieved before 28 days age.

### Surface Preparation

Unsound layers and contaminated concrete surfaces must be prepared using mechanical surface removing equipment. In case of areas deeply contaminated by oil or grease, such areas should be treated with hot compressed air.

## PRIMING

Concrete substrates should be primed with KingFloor

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Primer. Use lambs wool roller to apply the primer. More than one coat may be required for highly porous or textured surfaces.

Work the primer well into the surface of the concrete and whilst the primer is wet, dress the surface with Anti-slip Aggregates #3 at the rate of 0.5 kg/m<sup>2</sup> and allow to touch dry.

Another prime coat shall be applied just before applying the mixed KingFloor EP50T to ensure a strong bond between the primer coat and the top coat.

## MIXING

Prior to mixing, stir the individual components of KingFloor EP50T, taking care to ensure that the bottom and sides are thoroughly scraped. Transfer the entire contents of the Base and Hardener into a separate mixing container.

Using a Jiffy-type mixer attached to a slow-running electrical drill, mix for approximately 2 minutes. Once mixed, transfer the entire contents into a Casco or Creteangle-type mixer, taking care to ensure that the bottom and sides are thoroughly scraped.

Start the mixer and transfer to it the entire contents of the KingFloor EP50T Filler container, taking care to ensure that these are completely dry and lump-free. Continue mixing for approximately 2 minutes.

Notes:

- ⚠ Never mix KingFloor EP50T by hand as this could lead to areas of uncured material.
- ⚠ 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 Base, Hardener and colour pack using same procedure above, then add the filler component accordingly.

## APPLICATION

Once mixing is complete, transfer the KingFloor EP50T to the uncured primed surface and using a straight-edged steel trowel, apply it evenly. The use of KingRep Solvent when used to clean the trowel will also aid in producing a tight closed surface.

*Important: When applying each kit of KingFloor EP50T, leave approximately 200 mm of the closest working edge untrowelled as this will help the blending in of the next kit.*

*Note: Avoid excessive trowelling as this can lead to marks resembling burns on the surface.*

## CHEMICAL RESISTANCE

Occasional Spillage after full cure (7 days @ 25°C), ASTM D1308 (spot test @ 1 hr & 30°C)

Bleach	R
Detergent	R
Xylene	R
Acetone	R
White spirit	R
Motor oil	R
Diesel	R
Petrol	R
Sulphuric Acid (25%)	R
Hydrochloric Acid (10%)	R
Nitric Acid (10% solution)	R
Phosphoric Acid (50%)	RS
Sodium Hydroxide (50%)	R
Sodium Chloride (saturated)	R
Brine (saturated)	R

R: Resistant

RS: Resistant with slight discoloration

## REMARKS

- ⚠ KingFloor EP50T should not be applied on to surfaces known to suffer from damp rising.
- ⚠ KingFloor EP50T should not be applied at temperatures below 10°C or where ambient relative humidity exceeds 80%.

## SEALING

To ensure that the surface is fully sealed, it is recommended that KingFloor EP50T is sealed with two coats of water based KingFloor WD. If the floor will be exposed to chemicals, two coats solvent based KingFloor EP25 is recommended. (see related data sheets for further details and chemical resistance tables).

*Note: Please note that the application of a sealer will impair the slip resistance of the floor when subject to wet conditions.*

## CLEANING

KingFloor EP50T can be removed by KINGKRETE solvent prior setting.



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## PACKAGING

- KingFloor EP50T "natural" is available in 29.35 kg packs (14.7 litre).
- KingFloor EP50T "coloured" is available in 30 kg packs (15 litre) including colour pack.
- KingFloor Primer is available in 5 kg packs.

## THICKNESS RANGE

5 mm and above.

## COVERAGE

KingFloor EP50T: Approximately 3 m<sup>2</sup>/kit @ 5 mm thick.  
KingFloor Primer: 5 m<sup>2</sup>/kg.

## 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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## 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.