

# KingFloor<sup>®</sup> EP Terrazzo

Solvent-free pigmented epoxy resin for decorative terrazzo flooring systems.

## DESCRIPTION

KingFloor EP Terrazzo is a two-component, solvent-free seamless decorative flooring system consists of a highly durable and pigmented epoxy resin which can be mixed with a wide variety of synthetic or natural aggregates such as silica sand, marble chips, coloured and clear glass chips and many others to produce a durable and decorative epoxy terrazzo flooring system.

## APPLICATIONS

KingFloor EP Terrazzo is used to provide a seamless and decorative flooring system in several areas such as:

- 📏 Heavy traffic commercial centers.
- 📏 Hospitals.
- 📏 Soft drink and beverage production areas.
- 📏 Pharmaceutical labs.
- 📏 Airport terminals.
- 📏 Schools.
- 📏 Public buildings and offices.
- 📏 Food processing plants.

## ADVANTAGES

- 📏 Seamless and hard-wearing system.
- 📏 Non-slip.
- 📏 Provides an aesthetic natural appearance.
- 📏 Low maintenance.
- 📏 Solvent-free; environmentally friendly system.
- 📏 Resistant to a wide range of chemicals, consult with KINGKRETE's Technical Department for more details.

## METHOD OF USE

### Substrate Condition

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 system.

Concrete floors must have a minimum compressive strength of 25 N/mm<sup>2</sup> and a maximum concrete relative humidity of 75% (max. moisture content of 4%), relative humidity can be measured by using hygrometers.

## Technical Properties For Mixed Resin @ 25°C, Without Aggregate:

Colour:	Available in different colours
Mixed density:	1.55 ± 0.10 g/cm <sup>3</sup>
Solid contents:	100%
Pot life:	50 - 70 min
Compressive strength: BS 6319-2	≥ 70 MPa @ 7 days
Flexural strength: EN 13892-2	≥ 28 MPa @ 7 days
Tensile strength: BS 6319-7	≥ 20 MPa @ 7 days
Bond strength on C25/30 concrete: EN 1542	≥ 2 MPa @ 7 days (concrete failure)
Shore D hardness : ASTM D2240	≥ 80
Water absorption: ASTM D570	≤ 0.2%
Taber abrasion resistance: (1000 g, 1000 cycle) ASTM D4060, weight loss, CS17 wheel	≤ 90 milligram
VOC: ASTM D2369	≤ 20 g/ltr (comply with LEED)

### Priming

Concrete substrates should be primed with KingFloor Primer. Use lamb's 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 while the primer is wet, dress the surface with Anti-slip Aggregates #2/#3 at the rate of 0.5 kg/m<sup>2</sup> and allow to touch dry.



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## MIXING

Pre-stir each component to ensure that all solids and pigments are evenly distributed and eliminate any settlement in the materials.

Transfer the entire contents of the hardener pack into the base container and mix using a jiffy-type mixer attached to a slow running electric drill, mix for approximately 2 minutes.

Transfer the entire contents of the mixed resin container into a Casco or Creteangle-type mixer, ensuring that the bottom and sides are thoroughly scraped. Start the mixer and add the entire contents of the aggregate part. Continue mixing for approximately 2 minutes until a uniform mix is achieved and the aggregates are well coated with the resin mix.

*Important: Never mix by hand as this could lead to areas of uncured material.*

*Note: It is recommended to pre-condition the unmixed material to least 24 hours at temperatures between 20 and 25°C to maintain the best results.*

## PLACING AND FINISHING

Place metal divider strips (i.e. aluminium, stainless steel or brass strips) on the treated substrate as per the required design. Once mixing is complete, transfer the KingFloor EP Terrazzo to the primed surface and start spreading and compacting the mortar to the desired thickness using a steel trowel so that the top of mortar is approximately levelled with the top of the divider strips.

After 24 hours (at 23°C ambient temperature), a mechanical grinding machine should be used to smooth the surface of KingFloor EP Terrazzo so that the layer is levelled and the aggregate becomes apparent.

This step is repeated 3-4 times in slow circular motion until a smooth surface is achieved. Once dry grinding is finished, a vacuum cleaner should be used to remove all loose and dust particles.

After dry grinding, any pinholes should be prepared by filling them using a small quantity of KingFloor EP Terrazzo neat resin. Afterwards, the polishing step should be done by wet grinding the layer; this will enhance the finishing of the epoxy terrazzo and transfer the layer from a matt finish into a shiny one.

As a final step, the surface is cleaned by removing the slurry caused by wet grinding, clean water can be used to rinse the surface, and all slurry should be removed before sealing the layer. Please contact KINGKRETE's Technical Department for further information about the application of KingFloor EP Terrazzo.

## SEALING

To maintain the best results, an aliphatic PU clear coat; KingCoat A100 Clear or high solids acrylic clear coat; KingStamp AC100, should be used to provide a glossy finish and enhance the appearance as well as the chemical and physical properties of KingFloor EP Terrazzo. (See related datasheets for further details).

## REMARKS

KingFloor EP Terrazzo should not be applied on surfaces known to suffer from damp rising. KingFloor EP Terrazzo should not be applied at temperatures below 10°C or where concrete relative humidity exceeds 75%.

## CLEANING

Remove KingFloor EP Terrazzo by KINGKRETE Solvent prior setting.

## PACKAGING

KingFloor EP Terrazzo is available in 90 kg packs (18 kg coloured resin + 72 kg aggregate). KingCoat A100 Clear is available in 5 and 20 litre packs. KingStamp AC100 clear is available in 5 and 25 litre packs.

## MIXING RATIO

The recommended mixing ratio for KingFloor EP Terrazzo with aggregate is as follows:

Aggregate: Mixed resin = 4:1 (by weight).

In special cases and based on the requirements of the client, KingFloor EP Terrazzo can be supplied as base and hardener packs only to be mixed with selected aggregate to achieve special finishing patterns.

Given the wide variety of aggregates that can be used and the differences in their shape, size, dust content and absorbency, it is improbable to produce a single specific mix design that can cover all the variables as mentioned above.

## THICKNESS RANGE

Between 5 - 10 mm, depending on aggregate size and shape.

## COVERAGE

Approximately 9.0 m<sup>2</sup>/kit @ 5.0 mm thick, actual coverage depends on the mixing proportions, aggregate size and shape as well as the substrate regularity.



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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 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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## KingKrete-Qatar/KingFloor\_EP Terrazzo\_02/v2/07\_18

### 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

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