KingFloor ® EPM

Medium duty epoxy floor coating for vehicle decking system.

DESCRIPTION

KingFloor EPM is a hard wearing, epoxy base coating system primarily designed for use in car parks. It has excellent resistance to petrol, battery acid, diesel, brake fluid, de-icing salts, etc. KingFloor EPM System is formulated for easy application by roller or brush.
KingFloor EPM is multi-layer system consists of the following:

KingFloor EP25, a primer with excellent adhesion to concrete substrates.
KingFloor EP50, a high build epoxy coating.
KingFloor EP100, a high build, epoxy coating.

APPLICATIONS

KingFloor EPM System is designed for use in applications, such as:

- Car park decks.
- Car park ramps and turning circles.
- Traffic aisles and parking bays.
- Road marking.

ADVANTAGES

- Seamless.
- Excellent chemical resistance.
- Excellent resistant to petrol, battery acid, diesel and brake fluid.
- Resistant to de-icing.

SYSTEM SPECIFICATION

The combination of products specified depends on the area within the car part to which the KingFloor EPM System is being applied.

CAR PARK DECKS

Ramps and turning circles

- KingFloor EP25.
- First coat of KingFloor EP50.
- Two coats of KingFloor EP100.

Traffc aisles and parking bays

- KingFloor EP25.
- One coat of KingFloor EP50.
- One coat of KingFloor EP100.

METHOD OF USE KINGFLOOR EP25

Surface Preparation and Priming

To obtain a proper bond the substrate must be structurally sound clean, dry (less than 75% RH measured using a hygrometer, unless it is a suspended deck free to dry from below) and free from dust, laitance, oils, paints or other forms of contamination. Grit blasting, grinding or scarification can be used to remove laitance and surface contamination.

Areas known to have been subject to heavy contamination should be thoroughly inspected before applying KingFloor EP25. This is especially important where deposits of oil or grease have collected. Any irregularities within the substrate should be made good before the application of the Prime coat. Small defects may be made good using suitable repair materials such as KingRep range or epoxy putty "KingRep EP10".

MIXING

KingFloor EP25 comprises three components; a resin, hardener and colour pack which are supplied pre-weighed in the correct proportions. Under no circumstances should part mixing be carried out.

Taking care to ensure that the bottom and sides are thoroughly drained, pour the contents of the hardener portion into the resin container. Using a power whisk attached to a slow speed electric drill, mix for approximately 2 minutes, scrape down and re-mix for a further 1 minute, avoiding the entraining of excessive air, until a uniform consistency is obtained add the colour pack and further mix for 2 minutes. Allow to stand for 1 minute.

Note: Never mix KingFloor Primer 10 by hand as this could lead to areas of uncured material.

APPLICATION

Once mixing is complete, spread the KingFloor EP25 onto the floor using a medium pile roller, ensuring it is worked well into the surface.

Overcoating

KingFloor EP25 may be over coated as soon as it becomes tack free. If over coating of the KingFloor EP25 exceeds 30 hours, light scarification of the surface should be undertaken before further applications of KingFloor EP50.

KingFloor ® EPM

KINGFLOOR EP50

Surface Preparation

All surfaces should be primed with KingFloor EP25 before applying KingFloor EP50.

MIXING

KingFloor EP50 comprises three components, a resin, hardener and colour pack which are supplied pre-weighed in the correct proportions. Under no circumstances should part mixing be carried out.

Pre-mix the resin component with a power whisk attached to a slow speed electric drill for 1 minute before mixing both components.

Taking care to ensure that the bottom and sides are thoroughly scraped, transfer the contents of the resin in to the hardener. Using a power whisk attached to a slow speed electric drill, mix for approximately 3 minutes, ensuring the mixing head is pushed around the sides and bottom of the mixing container. Transfer the contents into another container, scraping down and re-mixing for a further 2 minutes avoiding the entraining of excessive air until a uniform consistency is obtained. Add the colour pack and further mix for 2 minutes.

APPLICATION

Immediately after mixing is complete, spread the KingFloor EP50 onto the primed floor using a short or medium pile roller.

KINGFLOOR EP100 MIXING

KingFloor EP100 comprises three components, a resin, hardener and colour pack, which are supplied pre-weighed in the correct proportions. Under no circumstances should part mixing be carried out.

Taking care to ensure that the bottom and sides are thoroughly scraped, transfer the entire contents of both components into a separate mixing container. Using a power whisk attached to a slow speed electric drill, mix for approximately 3 minutes ensuring the mixing head is pushed around the sides and bottom of the mixing container. Add the colour pack and further mix for 2 minutes.

APPLICATION

On completion of mixing immediately apply the KingFloor EP100 at the required thickness.

CLEANING

Tools should be cleaned with KingKrete Solvent immediately after use.

PACKAGING

KingFloor EP25 is available in 5 and 20 kg packs. KingFloor EP50 is available in 5 and 20 kg packs. KingFloor EP100 is available in 6 and 18 kg packs.

COVERAGE

The coverage obtained will vary depending on the porosity and texture of the surface to which the System materials are applied and, if applicable, the type and size of aggregate used. As a guide, the minimum coverage (per coat) should be as follows:

- KingFloor EP25: 0.2 kg/m².
- KingFloor EP50: 0.30 kg/m².
- KingFloor EP100: 0.4 kg/m².

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

TECHNICAL PROPERTIES @ 25^{0}C:	KINGFLOOR EP25	KINGFLOOR EP50	KINGFLOOR EP100
Mixed density:	1.35 ± 0.05 g/cm³	1.40 g/cm³	1.5 ± 0.05 g/cm³
Pot life:	3 hr @ 25°C 1 hr @ 35°C	3 hr @ 25°C 1 hr @ 35°C	60 min @ 25°C 30 min @ 35°C
Minimum time between coats:	6 hr @ 25°C 4 hr @ 35°C	12 hr @ 25°C 6 hr @ 35°C	12 hr @ 25°C 6 hr @ 35°C.
Maximum time between coats:	24 hr @ 25°C 16 hr @ 35°C	24 hr @ 25°C 12 hr @ 35°C	36 hr @ 25°C 18 hr @ 35°C
Dry film thickness:	70 - 80 microns/coat	150 microns/coat	-
Full curing time:	7 days @ 25°C 5 days @ 35°C	10 days @ 25°C 9 days @ 35°C	7 days @ 25°C 5 days @ 35°C
Compressive strength: BS 6319, Part 2:1983	-	-	70 MPa
Flexural strength: BS 6319, Part 3:1990	-	-	40 MPa
Tensile strength: BS 6319, Part 7:1985	-	-	20 MPa
Bond strength:	-	-	2.0 MPa (concrete failure)
Solid contents:	-	-	100%
Water absorption: ASTM D570	< 0.5%	< 0.6%	< 0.1%
Scrub resistance: ASTM D2486/2000	> 5000 cycle	-	-
Adhesion: ISO 2409/1992	Excellent	-	-
Opacity: (Grindo pac)	5 m²/ltr	-	-
Abrasion resistance: ASTM D4060/01 1000 cycle 1000 g using CS-17 wheel	< 100 mg	-	-

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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.

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