KingRep ® EP60T

High strength repairing and bedding epoxy mortar.

DESCRIPTION

KingRep EP60T is a three-component, solvent-free and high strength epoxy mortar designed primarily for use in construction and renovation work.

KingRep EP60T is supplied in a grey concrete colour to match existing concrete substrates. When finished correctly, it provides an impermeable layer with excellent resistance to abrasion, weathering and chemical attacks. Due to its well graded filler component, KingRep EP60T can be easily placed and compacted with negligible shrinkage.

APPLICATIONS

- Repairing of deep sections in columns, walls and heavily loaded areas.
- Bedding mortar beneath the transition strips in expansion joints.
- Infill mortar beneath steelwork or concrete beams in underpinning works.
- Sub-base for epoxy resin coatings and fine screed when a greater build is required together with a tighter and smoother finish.

ADVANTAGES

- Exceptional physical properties and mechanical strength.
- High bond strength to concrete substrates.
- Excellent resistance to a wide range of chemicals
- Non-shrink repairing and bedding mortar.
- Water impermeable.
- Can be applied on vertical and horizontal surfaces.

METHOD OF USE

Surface Preparation

The surface must be structurally sound, free from oil, grease and other forms of contamination. Concrete surface should be dry and suitably prepared either by scabbling or grit blasting to remove any undesired surfaces.

Steel surfaces should be grit blasted to remove all rust and scale (see the KINGKRETE Guide to Surface Preparation for further details).

TECHNICAL PROPERTIES

Compressive strength: BS 6319, Part 2:1983	> 30 MPa @ 1 day > 70 MPa @ 7 days
Tensile strength: S 6B319, Part 7:1985	8 MPa @ 7 days
Flexural strength: BS 6319, Part 3:1990	18 MPa @ 7 days
Bond strength: EN 1542	> 2.0 MPa (concrete failure)
Mixed density:	2.1 ± 0.1 g/cm³
Pot life:	40 - 60 min @ 25°C
VOC: ASTM D2369	< 30 g/ ltr (complies with LEED)

Priming

Surfaces must be primed with KingFloor Primer prior to application of KingRep EP60T. The primer should be applied so that the surface is thoroughly wet, ensuring there is a continuous film of resin over the surface. Particular attention should be paid to cracks. A nominal
500 microns of resin should be applied to exposed reinforcement.

KingRep EP60T should be applied directly after the application of the primer and before the primer starts to gel on the substrate.

Mixing

KingRep EP60T comprises of three components, a resin base, hardener and filler which are pre-weighed to the correct proportions. Under no circumstances should part mixing be carried out.

Ensure that the bottom and sides are thoroughly scraped; transfer the entire contents of the hardener container into the resin container. Using a mixer attached to a slow speed electric drill, mix for approximately 2 minutes until a uniform consistency is obtained. The resin mixture should then be transferred to a separate container or forced action mixer such as a creteangle type mixer, and the filler gradually added and mixed for a further 2 minutes or until the filler has thoroughly wetted out and a uniform consistency is obtained.

APPLICATION

KingRep EP60T should be applied by first tamping,

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followed by trowelling before the primer coat has hardened. The mortar should be applied in successive layers not exceeding 50 mm horizontally and up to 12 mm vertically, each layer being well compacted before each application of subsequent material. If the mortar has been allowed to harden, the surface should be abraded and a further coat of KingFloor Primer to be applied.

Where necessary, the mortar is shaped to the required profile e.g. to form coving and trowelled to a smooth finish. This operation can be aided by lightly wiping the trowel with KingRep solvent. If formwork or shuttering is to be used a suitable release agent should be applied to the formwork to prevent the KingRep EP60T adhering to it.

WORKING TIME

KingRep EP60T has a working time of approximately 40 minutes at 25°C. Mixed material should not be left standing for any length of time prior to application, as this will considerably reduce its working time.

WORKING CONDITIONS

KingRep EP60T should not be applied at temperatures below 5°C.

CURING

KingRep EP60T should be allowed to cure for 24 hours at 25°C before being subjected to foot traffic. At the same temperature, full mechanical and chemical properties are achieved after 7 days (please consult our Technical Department for details of curing times at other temperatures).

CLEANING

Clean uncured material with KINGKRETE solvent. Cured material can only be removed mechanically.

PACKAGING

KingRep EP60T is available in 20 kg pack size comprising resin base, hardener and filler component. KingFloor Primer is available in 5 kg packs comprising resin base and hardener.

SPECIFIED THICKNESS RANGE

Horizontally: 5 – 50 mm (maximum refers to one layer at a time to allow full compaction, deeper sections may be applied but built up in successive layers).
Vertically: 5 - 12 mm.

YIELD

KingRep EP60T: 10 litre/20 kg Pack. KingFloor Primer: 5.0 m²/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

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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.

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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QUALITY AND CARE

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