

KingRep[®] EP10

Solvent-free high strength epoxy paste.

DESCRIPTION

KingRep EP10 is a two component, solvent-free, high strength adhesive and patching compound. Formulated to give an easily applied paste and suitable for sealant gun application, KingRep EP10 is thixotropic in nature and is suitable for vertical and overhead bonding and structural repairs. KingRep EP10 adheres well to most building materials without the need for a primer, as well as exhibiting very good abrasion and chemical resistance along with negligible shrinkage.

APPLICATIONS

KingRep EP10 applications include:

Patching repair to defective concrete.

Bonding:

- ☒ Concrete to concrete.
- ☒ Steel to concrete.
- ☒ Rubber to concrete.
- ☒ Natural stone (such as granite, limestone and marble) to concrete.
- ☒ Natural stone (such as granite, limestone and marble) to steel.
- ☒ For gap filling and pin holes in concrete.
- ☒ For bonding all types of tiles.
- ☒ Works as a base coat for epoxy and polyurethane coating.
- ☒ For bonding KingBond 50E.

ADVANTAGES

- ☒ High bond strength to different substrates.
- ☒ High early and ultimate strength.
- ☒ Water impermeable.
- ☒ Non-slump.
- ☒ Easily applied on vertical and overhead surfaces.
- ☒ Excellent workability.

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 surface laitance.

Steel surfaces should be grit blasted to remove all rust and scale (see the KINGKRETE Guide to Surface Preparation for further details). The effectiveness of decontamination should be evaluated using a pull-off test.

TECHNICAL PROPERTIES

Appearance:	Thick grey paste
Compressive strength: BS 6319, Part 2	≥ 55 MPa @ 7 days
Tensile strength: BS 6319, Part 7	≥ 12 MPa @ 7 days
Flexural strength: BS EN 13892, Part 2	≥ 20 MPa @ 7 days
Bond strength: ASTM D4541	≥ 3.5 MPa @ 7 days (concrete failure)
Mixed density:	1.5 ± 0.05
Working time: ASTM D6577	1.5 - 2.5 hr @ 25°C 1 - 2 hr @ 35°C
Setting time:	24 hrs @ 25°C
VOC: ASTM D2369	< 20 g/ltr
Application thickness:	Up to 5 mm
Volume solids:	100%

APPLICATION

For bonding concrete sections, an even coating of product should be applied to both surfaces and these brought together under light pressure.

Any excess paste which exudes from the joint should be removed and the joint trowelled to a neat finish. The assembled sections should be protected from movement until the resin is set. Where KingRep EP10 is to be used as a bonding primer in the vertical or overhead position, an even layer of KingRep EP10 should be applied to the surface and worked well in to ensure good contact.

The material to be bonded should then be placed after approximately 30 minutes at 25°C. (This time refers to the total elapsed time from mixing the product). For patch repairs, KingRep EP10 should be applied to the surface and finished to levels. A smooth surface will be aided by wetting the trowel sparingly with KingRep solvent. KingRep EP10 can be applied to cracks or in accessible areas by means of a sealant gun.

While the material is wet, brush out any ridges left by the trowel. KingRep EP10 should not under any circumstance exposed to water before final set.

MIXING

KingRep EP10 comprises two components, a resin base and a hardener, which are supplied preweighed in the correct proportions. Under no circumstances should part mixing be carried out. When required for application, the



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two components should be mixed well until a uniform consistency and colour are obtained, this should be ideally carried out using a mechanical mixer.

Mixing of 1 kg packs can be done by hand but care must be taken to ensure homogenous mixing. In cold weather, mixing will be aided if the containers are stored in a warm environment before use.

WORKING TIME

KingRep EP10 has a working time between 60 - 90 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 EP10 should not be applied at temperatures below 5°C.

When exposed to temperatures over 35°C it will have a shorter pot and working life.

CURING

KingRep EP10 should be allowed to cure for 24 hours at 20°C before being subjected to foot traffic.

KingRep EP10 should never be applied in direct sunlight. 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 KingRep solvent. Cured material can only be removed mechanically.

PACKAGING

KingRep EP10 is available in 1 and 5 kg packs.

YIELD

1 kg Pack (0.67 litre).

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 Middle East facility are manufactured under a management system independently certified to conform to the requirements of the quality standards ISO 9001, ISO 14001 and ISO 45001.

* Properties listed are based on laboratory-controlled tests.

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Ref: KK-03027-MEA-R01 | Issue: 01.2026

STATEMENT OF RESPONSIBILITY

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NOTE

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