



KingBond[®] EPG

Solvent free, two part epoxy adhesive

DESCRIPTION

KingBond EPG is fast set, medium viscosity, solvent free, two part epoxy adhesive. KingBond EPG is a two component product. Components are black and white in color, when mixed at 1:1 ratio turn into a uniform grey color paste that bonds to asphalt and concrete surfaces.

APPLICATIONS

KingBond EPG is a fast set, high strength adhesive primarily designed to fix traffic markers and road studs. It can be used as a general purpose fast set epoxy paste for filling gaps, holes and surface irregularities, and for bonding of steel elements, natural stone, and polyethylene elements.

ADVANTAGES

- Fast set.
- Easy to use.
- Rapid adhesive strength development.
- High tensile and shear strength.
- 1:1 mixing ratio, making mixing easy and minimizing waste.

STANDARDS

KingBond EPG complies with AASHTO T237-73, Type 2, slant shear, bond strength and gel Time.

METHOD OF USE

Surface Preparation

All substrate surfaces should be clean and free of dust, loose material and contamination. Ceramic road studs or markers which are supplied with either resin rich, waxy or greasy finishes should be abraded before use.

Mixing

One part of component A should be mixed to one part of component B. To avoid waste only mix sufficient quantities that can be used within the pot life.

Components should be scooped from the tins and mixed together thoroughly using a spatula or palette knife in a suitable tin or board, until a uniform grey paste is obtained.

TECHNICAL PROPERTIES @ 25°C:

Bond strength to concrete: (3 hrs. @ 25°C)	Greater than the tensile strength of concrete
Bond strength to asphalt: (2 hrs. @ 25°C)	Greater than the tensile strength of asphalt
Specific gravity:	Part A 1.45 Part B 1.50
Slant shear strength: AASHTO T237-05	≥ 13790 kPa
Bond strength: AASHTO T237-05	≥ 1380 kPa
Gel time:	10 mins.

The failure occurs along the height of the specimens and within the concrete blocks.

Application

Apply the mixed adhesive to the area to be covered by the marker then press the marker into place so as to squeeze out a small bead of adhesive around the entire periphery of the marker. Markers should not be fixed until at least two weeks has elapsed from the time of laying asphalt, unless written approval is given by the engineer.

CLEANING

Tools should be cleaned with KINGKRETE solvent immediately after use.

Hardened material can be removed mechanically.

PACKAGING

KingBond EPG is available in 5, 20 kg and US gallon component A and 5, 20 kg and US gallon component B.

THEORETICAL COVERAGE

KingBond EPG: 15 - 30 ml/ stud.

KingBond® EPG

SETTING TIME

Temperature (°C)	Setting time (minutes)	Pot life (minutes)
6	160 - 170	70 - 90
12	120 - 130	50 - 70
16	80 - 90	40 - 60
20	40 - 60	25 - 30
25	25 - 30	10 - 15
30	10 - 18	8 - 11

Setting time and pot life will vary depending on temperature and size of mix; extending at lower temperatures and smaller thickness of application. Pot life and set time given in table above were determined using a 200 g mix.

At temperatures above 25°C the material workability increases as does the rate of strength development. At temperatures lower than 25°C the material workability decreases and strength development slows.

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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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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