

KingBond[®] EP150

Solvent free, two part epoxy adhesive

DESCRIPTION

KingBond EP150 is a fast set, solvent-free two-component epoxy adhesive specially designed to provide exceptional bond strength on concrete, steel and asphalt surfaces.

KingBond EP150 is supplied in two parts of white and black colour that when mixed together in 1:1 ratio produce a uniform grey colour paste that can be used for fixing traffic markers and roads studs and as a general-purposes epoxy adhesive.

APPLICATIONS

KingBond EP150 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 EP150 complies with AASHTO M235-91, Type I, II, IV and V, Class B and C for bond strength requirement by slant shear.

METHOD OF USE

Surface Preparation

All substrate surfaces should be clean and free from 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 25 MPa grade concrete @ 3 hr:	≥ 2 MPa (concrete failure)*
Bond strength to asphalt @ 3 hr:	≥ 2 MPa (asphalt failure)*
Specific gravity:	
Part A	1.45 ± 0.10
Part B	1.60 ± 0.10
Mixed material	1.50 ± 0.10
Slant shear bond strength: AASHTO T-237-73	≥ 45 MPa @ 7 days
Water absorption: ASTM D570-98	≤ 0.1%
Pot life: AASHTO T-237-73	10 ± 3 min
VOC: ASTM D2369	< 20 g/ltr (complies with LEED)

**Actual results depend on the mechanical characteristics of concrete and asphalt substrates.*

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

All tools should be cleaned immediately after finishing by KINGKRETE solvent. Hardened material should be removed mechanically.

PACKAGING

KingBond EP150 is available in 10 kg pack (5 kg base and 5 kg hardener) and 40 kg pack (20 kg base and 20 kg hardener).

THEORETICAL COVERAGE

KingBond EP150: 15 - 30 ml/stud.

KingBond[®] EP150

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

* Maximum time interval at which the position of the traffic marker or studs can be slightly adjusted and move after installation.

Setting time and pot life will vary depending on temperature and size of the mix; extending at lower temperatures and smaller thickness of application. Pot life and set time are given in the 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 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.

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

KK-ME-07.1-BD-EP150-R3-2601

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.