KingBond ® ETS100

Flexible solvent free joints transition strip mortar.

DESCRIPTION

KingBond ETS100 is a three components coal tar epoxy based mortar supplied in pre-weighed quantities ready for on-site mixing and use. KingBond ETS100 is specially formulated from epoxy resin modified with coal tar and polysulphide polymer to produce a flexible and durable mortar with excellent adhesion to concrete, asphalt and steel surfaces.

APPLICATIONS

- Designed for use as a transition strip between expansion joints & bridge decks, asphalt, steel and concrete substrates.
- Industrial floor joint filler for concrete construction
- and control joints.
- KingBond ETS100-F is a fast curing winter grade version from KingBond ETS100.

ADVANTAGES

- Solvent free.
- Hard wearing with high abrasions resistance.
- Excellent adhesion to concrete, asphalt and steel surfaces.
- Withstand dynamic movement.
- Fast cure; KingBond ETS100-F.
- No priming is required.
- Excellent resistance to heat and oxidation.
- Maintains its mechanical properties under sunlight and weathering conditions.

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.

Mixing

KingBond ETS100 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.

TECHNICAL PROPERTIES

Elongation at break: (Neat resin) ASTM D638	**@ 25ºC** >40% @ 1 day >30% @ 7 days	**@ 15ºC** >40% @ 1 day >30% @ 7 days
Water absorption: ASTM D570	< 0.5%	< 0.5%
VOC: ASTM D2369	< 60 g/ltr	

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

KingBond ETS100 should be applied by first tamping, followed by trowelling using steel float.

WORKING TIME

KingBond ETS100 has a working time of approximately 30- 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

KingBond ETS100 should not be applied at temperatures below 5°C.

CURING

KingBond ETS100 should be allowed to cure for 14 hours at 25°C and 10 hours @ 35oC before being subjected to vehicle traffic. At 35oC, full mechanical and chemical properties are achieved after 3 days. However, KingBond ETS100-F needs 6 hours @ 25ºC and 10 hours @ 15ºC before being subjected to vehicle traffic.

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TECHNICAL PROPERTIES		
	KingBond ETS100	**KingBond ETS100-F**
Colour:	black	Black
Working time:	30 - 40 min @ 25ºC 15 - 25 min @ 35ºC	20 - 30 min @ 25ºC 40 - 50 min @ 15ºC
Shore A: ASTM D2240	> 70 @ 1 day	> 80 @ 1 day
Shore D: ASTM D2240	> 30 @ 1 day	> 40 @ 1 day
Solids:	100%	100%
Mixed density:	2.0 ± 0.1 g/cm^3	2.0 ± 0.1 g/cm^3
Curing time: Initial cure/ vehicle traffic tack free time	14 hr @ 25ºC 10 hr @ 35ºC	6 hr @ 25ºC 10 hr @ 15ºC
Final cure/ chemical cure:	7 days @ 25ºC 3 days @ 35ºC	5 days @ 25ºC 7 days @ 15ºC
Bond strength EN 1542 on: Concrete Asphalt Steel	 >2 MPa concrete failure >2 MPa Asphalt failure >1.5 MPa	
Recommended application temperature:	15 - 40ºC	8 - 30ºC
Service temperature:	-20 - 70ºC	-20 - 70ºC
Compressive strength: BS 6319, Part 2	**@ 25ºC** >8 MPa @ 1 day >20 MPa @ 7 days	**@ 15ºC** >10 MPa @ 1 day >20 MPa @ 7 days
Tensile strength: (Neat resin) BS 6319, Part 7 & ASTM D638	**@ 25ºC** >3 MPa @ 1 day >8 MPa @ 7 days	**@ 15ºC** >3 MPa @ 1 day >8 MPa @ 7 days
Flexural strength: BS 6319, Part 3	**@ 25ºC** >4 MPa @ 1 day >10 MPa @ 7 days	**@ 15ºC** >3 MPa @ 1 day >10 MPa @ 7 days

CLEANING

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

PACKAGING

KingBond ETS100 is available in 20 kg pack size comprising resin base, hardener and filler component.

YIELD

10 litre/20 kg Pack.

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

KingBond ® ETS100

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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KK-SA-07.1-BD-ETS100-R3-2601

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