



KÖSTER KB-Pox IN

Technical Data Sheet IN 231

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- Test report MPA Braunschweig (1200/625/17) Pan dated May 9th, 2017 Testing of performance and identity features on the epoxy resin KÖSTER KB-Pox IN according to DIN EN 1504-5
 - WZ "KB-POX" protected, German Patent Office, 395 06 702
 - Bremer Environmental Institute GmbH, Emissions testing acc. the test and evaluation scheme of AgBB (Committee for the health assessment of building products), AZ: L 2750 FM, 23.10.2020, Level A+

Epoxy resin for crack injection and saturation for structural rebonding

 0761	KÖSTER BAUCHEMIE AG Dieselstraße 1-10, 26607 Aurich 17 IN 231 EN 1504-5:2004 Concrete construction member injection material for structural filling of cracks, cavities, and defects in concrete U(F1)(W1)(1/2)(8/30)(1)
Bond strength Volumetric shrinkage Viscosity Glass transition temperature Injectability into dry medium Injectability into non-dry medium Durability (Compatability with concrete) Corrosion behavior Release of dangerous substances	> 2.0 MPa < 3% 175 mPa·s > + 40 °C Injectability class: 0.1 Injectability class: 0.1 Cohesive failure in concrete No corrosive effect Compliance with 5.4, EN 1504-5

Features

KÖSTER KB Pox IN is a solvent free, 2 component low viscous epoxy injection resin for crack injection. KÖSTER KB-Pox IN does not contain any fillers or softeners and thereby sedimentation is avoided. Due to its high rate of penetration into porous substrates and it's excellent adhesion to concrete, stone, masonry and metal, KÖSTER KB-Pox IN permanently seals and bridges cracks and joints and restores structural integrity. KÖSTER KB-Pox IN can be used in water saturated cracks.

KÖSTER KB-Pox IN fulfills the requirements of the Emissions testing acc. the test and evaluation scheme of AgBB (Committee for the health assessment of building products) with requirement class A +.

Advantages

- Extremely low viscosity for deeper penetration and injection of very fine cracks
- Restores the structural bond
- Suitable for dry and moist cracks
- The material can be injected or poured on horizontal applications
- Practical 1 kg plastic combi-package reduces waist

Technical Data

Mixing ratio	3.14 : 1
- by weight	2.8 : 1
- by volume	
Pot life (+ 20 °C, 100 g mixture)	approx. 45 min.
(EN ISO 9514)	

Application temperature	above + 8 °C
Ideal application temperature	+ 15 °C
Mixed viscosity (ISO 2555)	approx. 170 mPa·s
Density of mixture (DIN 53479)	1.0 kg / l
Compressive strength (7 days)	Approx. 80 N / mm ²
Flexural strength (7 days)	Approx. 35 N/mm ²
Adhesive tensile strength	
- dry standard concrete C 50/60	> 4 N / mm ²
- damp standard concrete C 50/60	> 2 N / mm ²
Color	yellow-orange (Comp.-B)

Fields of Application

KÖSTER KB-Pox IN is used without pre-injection for filling and closing dry, damp, and wet cracks, joints, and voids. KÖSTER KB-Pox IN is used in cases where crack flanks or unequal structural members have to be structurally bonded together such as in concrete elements or engineering structures like tunnels or bridges, underground garages etc.

- Structurally bonding of the structure with epoxy solid body resin
- Bonding horizontal and vertical cracks in columns, beams, walls and floors
- Sealing horizontal cracks on floors or screeds prior installation of coating systems

Substrate

The substrate can be dry, damp or wet and must be free of loose particles, oils, grease, and other contaminants. Liquid water in the crack has to be displaced with KÖSTER KB-Pox IN during injection when present.

Application

The A and the B component must be mixed intensively using a slowly rotating electrical mixer preferably equipped with a KÖSTER Resin Stirrer. The material must be mixed until it is streak free and homogeneous in appearance. Re-pot the material and mix again to avoid mixing failures.

Crack injection

The placement of the injection packers depends on the width and course of the crack. We recommend using KÖSTER Superpackers. The drill holes are placed on alternating sides of the crack at a maximum distance of 15 cm. Fine cracks may require reduced spacing. Drill at an angle of approx. 45° towards the crack. To stop material from exiting the crack, the crack is sealed with KÖSTER KB-Fix 5 prior to injection. The injection is carried out using an appropriate injection device such as the electrical KÖSTER 1C Injection Pump. After the material has cured, remove the injection packers and close the drill holes with KÖSTER KB-Fix 5. The material can also be installed by pouring, (saturation).

The information contained in this technical data sheet is based on the results of our research and on our practical experience in the field. All given test data are average values which have been obtained under defined conditions. The proper and thereby effective and successful application of our products is not subject to our control. The installer is responsible for the correct application under consideration of the specific conditions of the construction site and for the final results of the construction process. This may require adjustments to the recommendations given here for standard cases. Specifications made by our employees or representatives which exceed the specifications contained in this technical guideline require written confirmation. The valid standards for testing and installation, technical guidelines, and acknowledged rules of technology have to be adhered to at all times. The warranty can and is therefore only applied to the quality of our products within the scope of our terms and conditions, not however, for their effective and successful application. This guideline has been technically revised; all previous versions are invalid.

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Crack filling

The combined 1 kg container is especially available for filling cracks. To do this, component B must be filled into the plastic bottle of component A. The bottle is closed again and both materials are mixed intensively by shaking for at least 30 seconds, until a homogeneous consistency is achieved. Repotting is not necessary in this case. After mixing, the pouring spout is screwed onto the bottle and the material can then be poured directly into the course of the crack.

Due to possible water displacements, reinjections may be necessary to address localized areas.

Consumption

Approx. 1 kg / l void

Cleaning

Clean tools immediately after use with KÖSTER Universal Cleaner.

Packaging

IN 231 001	1 kg combipackage
IN 231 006	6 kg combipackage

Storage

Store the material at temperatures between + 10 °C and + 30 °C; in originally sealed packages, the material can be stored for a period of minimum 12 months.

Safety

Wear protective gloves and goggles. When carrying out injection work, make sure to protect the surroundings from injection resin that may be discharged from the wall, packers, drill holes, etc. Do not stand directly behind the packers during the injection. For professional use only.

Mixed material must be used immediately and entirely after mixing.

Material residues must be stored outdoors as they develop a high reaction heat and smoke may form. This also applies to large-volume applications.

Other

Liquid polymers react to temperature fluctuations by changing their viscosity and/or curing behavior. Low temperatures will slow the reaction; high temperatures will accelerate the reaction rate. Mixing large volumes will also increase the reaction rate. Coating work should therefore only be carried out at falling or constant temperatures. The instructions given in the Technical Guidelines must be followed.

A dew point distance of +3 °C must be maintained during and for at least 12 hours after coating work. Coatings must be protected from moisture in all forms until completely cured. At material temperatures below +15 °C the consistency changes - the material becomes more viscous.

When applying with the KÖSTER 1C Injection Pump, only small containers (1 kg) tempered to +15 °C should be used to prevent accelerated reactions.

Related products

KÖSTER KB-Fix 5	Prod. code C 515 015
KÖSTER Screed Anchor 6 mm x 70 mm	Prod. code CT 910
KÖSTER Impact Packer 12 mm x 70 mm	Prod. code IN 903 001
KÖSTER Lamella Impact Packer Adapter	Prod. code IN 908 001
KÖSTER Lamella Impact Packer	Prod. code IN 909 001

KÖSTER Superpacker 10 mm x 85 mm CH	Prod. code IN 912 001
KÖSTER Superpacker 10 mm x 115 mm CH	Prod. code IN 913 001
KÖSTER Packer 13 mm x 130 mm CH	Prod. code IN 913 002
KÖSTER Superpacker 13 mm x 130 mm CH	Prod. code IN 915 001
KÖSTER One-Day-Site Packer 13 mm x 90 mm CH	Prod. code IN 918 001
KÖSTER One-Day-Site Packer 13 mm x 120 mm CH	Prod. code IN 919 001
KÖSTER One-Day-Site Packer 13 mm x 90 mm PH	Prod. code IN 921 001
KÖSTER One-Day-Site Packer 13 mm x 120 mm PH	Prod. code IN 922 001
KÖSTER 1C Injection Pump	Prod. code IN 929 001
KÖSTER Gel Packer (Base)	Prod. code IN 931 001
KÖSTER Resin Stirrer 100 mm	Prod. code IN 988
KÖSTER Resin Stirrer 75 mm	Prod. code IN 989
KÖSTER Universal Cleaner	Prod. code X 910 010

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