




KÖSTER IN 3

Technical Data Sheet IN 230

Issued: 2019-08-22

- Official test certificate, Fachhochschule Ostfriesland (Technical College) - Properties of the resin

2 component polyurethane injection resin for structural rebonding

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|  | KÖSTER BAUCHEMIE AG Dieselstraße 1-10, 26607 Aurich 18 W 230 EN 1504-2: 2004 Surface protection - Coating EN 1504-2 |
| Water vapour permeability Capillary water absorption and water permeability Adhesive strength | Class II $w \leq 0,1 \text{ kg/m}^2 \text{ h}^{0,5}$ $\geq 1 \text{ MPa}$ |

Features

KÖSTER IN 3 is a solvent free, 2 component polyurethane injection resin for crack injection. Due to its high compressive and adhesive tensile strength, KÖSTER IN 3 permanently seals and bridges cracks and joints where structural rebonding is required in dry and slightly damp cracks.

Technical Data

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| Mixing ratio Component A : B | |
| - by volume | 1.2 : 1 |
| - by weight | 1 : 1 |
| Pot life (+ 20 °C, 1 l mixture) | 40 min |
| Application temperature | + 5 °C to + 30 °C |
| Ideal application temperature | + 15 °C |
| Viscosity (A + B component) | approx. 300 mPa.s |
| Density (of the mixture) | approx. 1.1 kg / l |
| Compressive strength | > 80 N / mm ² |
| Adhesive tensile strength (Concrete) | > 2 N / mm ² |
| Tensile strength (7 d / + 23 °C / 65 % rel. hum.) | approx. 12 N / mm ² |

Fields of Application

The material is used for the permanent sealing, bridging, and the structural rebonding of dry and slightly damp cracks and joints in concrete, screeds, and masonry. KÖSTER IN 3 is used in cases where crack flanks or unequal structural members have to be bonded together and achieve structural stability. Water bearing cracks are dried by pre-injecting KÖSTER IN 1 to stop and displace the water.

Application

The A and B components are mixed thoroughly using a slowly rotating electrical mixer preferably equipped with a KÖSTER Resin Stirrer. The material is then re-potted and mixed again. The material must be mixed until it is streak free and homogeneous in appearance and consistency.

The mixture can be applied using injection packers such as the KÖSTER Superpacker and conventional single component injection pumps such as the electrical KÖSTER 1C Injection Pump. Holes are drilled on alternating sides along the course of the crack at an interval of approx. 10 – 15 cm at a 45° angle to the substrate surface. Injection packers are inserted into the holes and on vertical surfaces are injected

from bottom to top. Prior to injection, the cracks are sealed using KÖSTER KB-Fix 5. Initially every third drill hole is left open to control the dispersal of the injection resin. When material exits the open drill hole a packer is then installed into the hole and injection is continued.

The pot life of the material is 40 minutes at + 20 °C. Higher temperatures will reduce the pot life and lower temperatures will increase the pot life.

On vertical cracks the injection is completed from bottom to top. After cure and removal of the injection packers, the drill holes are sealed with KÖSTER KB-Fix 5.

Regaining structural strength requires that the crack flanks have sufficient bonding characteristics to achieve good adherence. Injection foams and bond inhibiting substances can reduce the strength of the system. When doubt remains as to the strength of the bond, test injections are to be done and core samples analyzed to determine the bond to the crack flanks.

Consumption

Approx. 1.1 kg/l void

Cleaning

Clean tools immediately after use with KÖSTER PUR Cleaner.

Packaging

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| IN 230 001 | 1 kg combipackage |
| IN 230 008 | 8 kg combipackage |

Storage

Store the material at temperatures between + 10 °C and + 30 °C. In originally sealed packages, the material can be stored for 12 months.

Safety

Wear protective gloves and goggles when processing the material. When carrying out injection work, make sure to protect the surrounding work area from injection resin that may be discharged from the wall, packers, drill holes, etc. Do not stand directly behind the packers during injection.

Related products

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| KÖSTER KB-FIX 5 | Prod. code C 515 015 |
| KÖSTER Repair Mortar R4 | Prod. code C 536 |
| KÖSTER IN 1 | Prod. code IN 110 |
| KÖSTER PUR Cleaner | Prod. code IN 900 010 |
| KÖSTER Impact Packer 12 mm x 70 mm | Prod. code IN 903 001 |
| KÖSTER Superpacker 13 mm x 115 mm | Prod. code IN 915 001 |
| CH | |
| 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 Hand Pump without manometer | Prod. code IN 953 001 |
| KÖSTER Hand Pump with manometer | Prod. code IN 953 002 |
| KÖSTER Footpump | Prod. code IN 958 001 |

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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