




KÖSTER IN 5

Technical Data Sheet IN 250

Issued: 2023-08-22

MPA Braunschweig, testing of physical characteristics according to the DIN EN 1504-5.

Elastic, low viscosity 2 component polyurethane injection resin for crack- and hose-injection

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|  0761 | <p>KÖSTER BAUCHEMIE AG Dieselstraße 1-10, 26607 Aurich 10 IN 250 EN 1504-5:2004 Concrete injection for the elastic filling of cracks, voids, and defects U(D1)-W(3/5)-(1/2/3)-(8/30)</p> |
| Adhesion capacity | > 1.0 MPa |
| Elongation capacity | > 30 % |
| Water tightness | D1 |
| Glass transition temperature | NPD |
| Injectability into dry medium | Injectability class: 0.3 |
| Injectability into non-dry medium | Injectability class: 0.3 |
| Durability | No failure during compressive tests; loss of deformation capability 6.7 % |
| Corrosion behaviour | deemed to have no corrosive effect |
| Dangerous substances | NPD |

solidifying granular soils.

Application

The A and the B components are mixed in the given mixing ratio 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. The minimum application temperature is + 5 °C. Ideally the material should be tempered to + 15 °C before mixing and injection, temperatures above + 25 °C will increase the reaction rate and reduce the pot life.

Crack injection

Active water leaks are stopped through injection with KÖSTER IN 1. The placement of the injection packers depends on the course of the crack. The drill holes are placed on alternating sides of the crack at a distance of approx. 10 to 20 cm from each other at an angle of 45° to the surface of the structural member. The diameter of the drill holes depends on the chosen injection packers. All customary resin injection devices are suitable.

Prior to injection, the crack is sealed with KÖSTER KB-Fix 5. The injection is carried out using a customary injection device such as the KÖSTER 1C Injection Pump, from bottom to top along the course of the crack. When using a single component injection pump, no moisture may come into contact with the injection material during the application. In cases of moist cracks and joints, material is injected until bubble-free material leaks from the crack or adjacent packers. Subsequent injections with KÖSTER IN 5 can only be carried out within the pot life of the material. After the removal of the injection packers, the drill holes can be closed with KÖSTER KB-Fix 5.

Hose injection

The injection hoses are installed in the middle of the wall in lengths of approximately 10 to 15 m. The minimum concrete cover must be 8 to 10 cm. The injection hoses must be in continuous contact with the concrete substrate. The sealing caps of the holder boxes must be flush with the surface of the formwork and remain accessible. No injection should take place within the first 28 days of the concrete being cast.

The injection is carried out using customary low pressure injection systems in conjunction with suitable injection ports, (packers). When using a single component pump, no moisture may come into contact with the injection material during the application.

The injection hose is filled until material comes out of the other hose end. That end of the hose is then sealed and material is injected until the gauge pressure on the injection pump remains constant. Subsequent injections with KÖSTER IN 5 can only be carried out within the pot life of 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,

Features

KÖSTER IN 5 is a solvent-free, low viscosity, 2 component polyurethane for permanently and elastically injecting, filling, and sealing cracks and construction joints.

KÖSTER IN 5 does not react aggressively when coming into contact with steel or iron, so that a corrosion protection is achieved. Due to its slow reaction, the material can be processed for up to 4 hours.

Advantages

- Low viscosity for deeper penetration
- Long pot life for hose injection
- Suitable on dry, moist, and wet cracks
- Elastic solid body resin with high elongation capacity

Technical Data

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| Mixing ratio Comp. A : B | by volume | 1 : 1 |
| | by weight | 1 : 1.2 |
| Viscosity (25 °C) | Comp. A | approx. 65 mPa.s |
| | Comp. B | approx. 90 mPa.s |
| Flashpoint | | > 200 °C |
| Pot life (20 °C) | | approx. 4 hours |
| Application temperature | | above + 5 °C |
| Ideal application temperature | | + 15 °C |

Fields of Application

The material is intended for the pressure injection of construction joints via injection hoses. It can also be used for permanently and elastically sealing dry, moist and water-bearing cracks and joints as well as for

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.

packers, drill holes, etc. Do not stand directly behind the packers during injection.

KÖSTER Resin Stirrer 75 mm

Prod. code IN 989

Consumption

Approx. 1.1 kg / l void

Cleaning

Clean tools immediately after use with KÖSTER PUR Cleaner.

Packaging

IN 250 010 10 kg combipackage

Storage

Store the material at temperatures between + 10 °C and + 30 °C; in originally sealed containers it can be stored for 12 months.

After partial removal, the containers must be closed immediately (do not mix up the caps) and turned "upside down" once to seal the closures from the inside.

Safety

Contains diisocyanate. When working with the material, work clothing that covers arms and legs or a protective suit must be worn. When working in confined spaces or in the "overhead area" hoods or covers must be worn. Wear suitable protective gloves (e.g., nitrile gloves) and protective goggles. When processing the material, pressure is created. Please do not stand directly behind Packer. 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.

Other

- Due to water displacements, reinjections may be necessary to address localized areas
- KÖSTER IN 5 is not suitable for wide moving joints with considerably high dynamic movements

Related products

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| KÖSTER KB-Fix 5 | Prod. code C 515 015 |
| KÖSTER IN 8 | Prod. code IN 271 |
| KÖSTER PUR Cleaner | Prod. code IN 900 |
| 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 | Prod. code IN 912 001 |
| CH | |
| KÖSTER Superpacker 10 mm x 115 mm | Prod. code IN 913 001 |
| CH | |
| KÖSTER Packer 13 mm x 130 mm CH | Prod. code IN 913 002 |
| KÖSTER Superpacker 13 mm x 130 mm | Prod. code IN 915 001 |
| CH | |
| 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 Hand Pump without manometer | Prod. code IN 953 001 |
| KÖSTER Hand Pump with manometer | Prod. code IN 953 002 |
| KÖSTER Resin Stirrer 100 mm | Prod. code IN 988 |

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