



## KÖSTER IN 1

Technical Data Sheet IN 110

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- Test certificate K-256015-15-Ko according to the Guideline for Hygienic Assessment of Organic Coatings in Contact with Drinking Water, Hygiene-Institut des Ruhrgebiets

## Single component PU-injection foam for sealing water-bearing cracks and joints

### Features

KÖSTER IN 1 is a single component polyurethane prepolymer used with 10 % catalyst. The system reacts when it comes into contact with water and forms a waterproof polyurethane foam. KÖSTER IN 1 is solvent and filler free and resistant to hydrolysis. When coming into contact with water in a crack, KÖSTER IN 1 forms a fine pored, closed-cell foam which stops and displaces the water.

### Advantages

- Fast foaming effect stops water in seconds
- High expansion volume
- Suitable for use in drinking water environment

### Technical Data

Mix viscosity at 25 °C	approx. 300 mPa.s
Volume expansion	max. 1:30
Density of the mixture at 20 °C	approx. 1.1 kg / l
Density of the fully cured foam	approx. 0.1 g / cm <sup>3</sup>
Starting time	approx. 30 seconds
Expansion time	approx. 60 seconds
Non-sticky after	approx. 2 minutes
Mixing ratio (by weight)	10 : 1 (resin / A : catalyst / B)
Mixing ratio (by volume)	11 : 1 (resin / A : catalyst / B)

### Fields of Application

KÖSTER IN 1 is intended for sealing water bearing cracks in concrete and masonry using pressurized injection equipment.

- Stopping fast large water leakages
- Waterproofing and sealing horizontal and vertical cracks
- Sealing wall-floor joints
- Sealing cracks when working in drinking water environment

### Substrate

KÖSTER IN 1 reacts only in contact with water. In dry cracks pre-wet the crack before application.

### Application

The A component and the catalyst are recommended to be mixed at + 15 °C 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 and consistency.

The ready mixed material must be used within the given pot life. 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. The mixture can be applied using conventional single component injection pumps such as the electrical KÖSTER 1C Injection Pump. Prior to the injection, the cracks can be sealed using KÖSTER KB-Fix 5. Holes are drilled on alternating sides along the course of the crack at an interval of approx. 10 – 15 cm. Injection packers are inserted into the

holes and (when possible) injected from bottom to top. The diameter of the drill holes depends on the injection packers chosen. After the injection of KÖSTER IN 1, the crack can be permanently sealed using KÖSTER IN 2 or KÖSTER IN 3. These subsequent injections are carried out between 5 and 15 minutes (depending on the surrounding temperature) after the initial injection.

### Consumption

Approx. 0.1 kg/l void

### Cleaning

Clean tools immediately after use with KÖSTER PUR Cleaner.

### Packaging

IN 110 001	1 kg combipackage
IN 110 005	5.5 kg combipackage
IN 110 027	27.5 kg combipackage

### Storage

Store the material at temperatures between + 10 °C and + 30 °C. In originally sealed packages, the material can be stored for 6 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.

### Other

- Due to water displacements, reinjections may be necessary to address localized areas
- Subsequent injection of a solid body resin is necessary for a permanent elastic sealing system

### Related products

KÖSTER KB-Fix 5	Prod. code C 515 015
KÖSTER IN 2	Prod. code IN 220
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

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 application 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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