KÖSTER
Waterproofing Systems

KÖSTER IN 1

Technical Data Sheet IN 110

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- Test certificate K-25015-15-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.

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^3
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.

Substrate
KÖSTER IN 7 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.

Related products

KÖSTER KB-FIX 5	Prod. code C 515 015
KÖSTER IN 2	Prod. code IN 220
KÖSTER IN 3	Prod. code IN 230
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 CH	Prod. code IN 915 001
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 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

IN - Injection systems

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