



KOSTER 2 IN 1 Injection Resin

Water reactive, elastic Polyurethane-injection resin for single and two stage injections of dry and water bearing cracks and joints

Technical guideline / Article number 6.145

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Features:

When KOSTER 2 IN 1 resin comes into contact with water, it reacts to form a highly elastic foam. When KOSTER 2 IN 1 resin is injected under dry conditions, it reacts to form a solid body elastic resin. KOSTER 2 IN 1 remains permanently elastic after reacting. It is therefore able to follow crack movements and seal cracks permanently with an elastic polyurethane solid resin without necessitating follow-up injections. KOSTER 2 IN 1 is a fast reacting foam for the short term sealing of leaks as well as an elastic solid resin for the permanent sealing of cracks. KOSTER 2 IN 1 unites two resins in one product. It is free of solvents and is resistant to hydrolysis. Because KOSTER 2 IN 1 does not react aggressively when coming into contact with steel or iron, a corrosion protection is achieved.

Technical Data:

Mixing viscosity at 77 °F	
ASTM D-115-72	approx. 250 cP
ISO 2555	approx. 250 mPa.s
Volume increase at water contact	max. 1 : 20
Density of the mixture at 68 °F	
DIN 53479	approx. 9.18 lb/gal
Spec. density of the cured foam	
ASTM D 1622	approx. 0.05-0.1 g/cm ³
Starting time at water contact	approx. 50 sec
Expansion time	approx. 3 min
Non-sticky after	approx. 6 min
Pot life (68 °F, 1 kg of mixture)	
DIN EN 1504-5	45 min
Reaction time without water contact (at 68 °F)	
	approx. 24 h
Mixing ratio (by weight)	1 : 1 (A : B)
Mixing ratio (by volume)	1.2 : 1 (A : B)

Advantages:

- only one product is needed on the jobsite, which provides for easier calculation of required resin quantities
- applicator no longer needs to verify if a crack is wet or dry
- re-injection is done through the same packers as initial injection

- comparably long pot life
- does not become brittle over time

Use:

KOSTER 2 IN 1 stops active leaks and seals cracks and construction joints permanently and elastically. It can be injected in dry and wet cracks. The material can also be used for filling of voids.

Mixing:

The A and the B component are recommended to be mixed at + 59 °F in the given mixing ratio using a slowly rotating electrical mixer preferably equipped with a KOSTER Resin Stirrer. The material must be mixed until it is streak free and homogeneous in appearance and consistency.

Installation:

The ready mixed material must be used within the given pot life. The minimum application temperature is + 41 °F. Ideally the material should be brought up to a temperature of 59 °F before mixing and injection. Temperatures above + 77 °F 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 KOSTER 1C Injection Pump. Prior to the injection, the cracks can be sealed using KOSTER KB-Fix 5. Holes are drilled on alternating sides along the course of the crack at an interval of approx. 4 – 6 inches. 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. The injection is carried out in two stages:

Injection of KOSTER 2 IN 1 until the resin is discharged as foam from the adjoining drill hole or respectively the surface of the crack.

Follow-up injection with KOSTER 2 IN 1 within 10 to 15 minutes of the initial injection. The follow-up injection has to be carried out within the pot life of the initially injected material. (When filling large, wet voids inject in two stages. Waiting time between the first and second injection is at least 1 hour).

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Packaging:

6 gal, 1.2 gal, 0.24 gal combi-packages

Cleaning of Tools:

Clean tools immediately after use with KOSTER KB-Pur Cleaner.

Coverage:

Approx. 0.1 gallon / gallon void (foam)

Approx. 1 gallon / gallon void (solid resin)

Storage:

Store the material at temperatures between + 50 °F and + 86°F. 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.

Technical Guidelines Cited:

KOSTER KB-Fix 5	Art. No. 5.01
KOSTER KB-Pur Cleaner	Art. No. 9.10
KOSTER 1C Injection Pump	Art. No. 12.072
KOSTER Resin Stirrer	Art. No. 12.088

Limited Warranty:

KOSTER warrants that its product shall be in accordance with the specifications published in the current revision of the products data sheet. KOSTER covenants that in the event any of its products fail to meet their published specifications, KOSTER shall replace those products proved to be defective. KOSTER shall not be responsible for any incidental or consequential damages due to the breach of its warranties. Notwithstanding the foregoing, KOSTER's sole liability hereunder shall not exceed the cost of the defective product originally purchased. EXCEPT AS SET FORTH ABOVE, KOSTER MAKES NO OTHER WARRANTIES EXPRESS OR IMPLIED AND MAKES NO WARRANTY AS TO THE MERCHANTABILITY OR FITNESS OF THE PRODUCT FOR A PARTICULAR PURPOSE. THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. The user must determine if the product is suited for the intended use and the user must bear the risks and liabilities associated with it.