

BKM SH-1K

FoamResin
technical data sheet

Article-No.: H-001-317 5,5 kg Metal canister
A-comp. 5 kg metal canister
+ B-comp. 0.5 kg (catalyst) Metal can

Product description

BKM SH-1K is a phthalate-free, water-stopping, and highly reactive injection resin used to stop flowing water. The second component is an optional catalyst that allows the reaction time to be adjusted. If the dosage is lower than specified, the reaction time will be prolonged. On contact with water, BKM SH-1K reacts within seconds with strong foaming to form a closed-cell, hard-elastic and dimensionally stable PU foam. After curing, the material does not shrink.

Product advantages

- Reaction time adjustable
- Up to 30-fold increase in volume, with free foaming
- Hard elastic
- Phthalate-free
- Foaming within seconds
- Reaction on contact with water
- Closed cell foam
- Dimensionally stable, no shrinkage after curing
- Low viscosity
- Injection with 1C injection equipment
- "Made in Germany"

Specification

Base : Polyurethane (isocyanate and catalyst)
Color : A-component: brownish
B-component: transparent
Mixing ratio: 10:1 by weight parts
Processing temperature : from + 5°C to approx. 35°C
Density : approx. 1,15 g/ml (DIN 53 479)
Viscosity (Brookfield): approx. 130 mPas (+25°C) (EN ISO 3219)
Reaction time, water temperature 15°C: approx. 11 seconds
at Mixing ratio 10:1
Adjustable via B-component (catalyst)

All data are laboratory values.

The hazard statements and safety advice on the material safety data sheets and the container labels must be observed.

GISCODE: PU40

Applications

BKM SH-1K is used for sealing injection as a waterstop in case of strong or flowing water in cracks, joints, cavities, crevices and fissures in civil engineering. Typical applications are e.g. tunnel construction, sheet pile sealing, mining, special civil engineering and as pre-injection into water-bearing cracks, prior to a BKM SEF-2K injection.

Product application

Substrate preparation

Before starting the injection work, a structural condition analysis must be carried out on the object to be sealed. The suitable injection material is selected on the basis of the results of the analysis (moisture situation, crack course, crack width, occurrence of cavities, water temperature, etc.). For crack or construction joint injection, injection packers are placed at an angle (45°) following the course of the crack or joint. The borehole diameter is to be selected depending on the diameter of the injection packers to be used (example: 13 mm packer diameter = 14 mm borehole diameter). The packers must be firmly mounted using appropriate tools so that they do not come loose even at high injection pressures.

Processing

BKM SH-1K is injected via 1C injection equipment (available on request). The mixing of the respective components A+B takes place in the specified mixing ratio and is then filled into the pressure injection device (material hopper). The reaction time can be accelerated or slowed down via component B (catalyst). Injection is usually carried out under an initial pressure of approx. 15 bar for concrete and 3 bar for masonry. Depending on the situation, the injection pressure may increase.

The ready-mixed material (A+B) must be injected within the specified working or pot life. BKM SH-1K must be injected until the water flow is stopped. Depending on the occurrence of voids, this may take several seconds or minutes. In addition, change to the next injection packer as soon as material leakage is detected at the adjacent packer, at the crack surface or from the joint. Re-injection within the working time via the same injection packer is recommended.

For force-fit crack or construction joint sealing, post-injection with BKM SEF-2K is recommended.

After complete curing of BKM SH-1K, the boreholes are sealed with BKM HS. Depending on the occurrence of cavities, the specified material quantities may change. Changes in temperatures alter the reaction properties of the material.

Consumption

depending on cavity occurrence

Comments

Delivery

5,5 kg Metal canister

A-comp. 5 kg metal canister Article no. H-001-317

B-comp. 0.5 kg metal canisters

Cleaning the tools

Work equipment and tools must be cleaned with BKM Resin Cleaner immediately after use. Cured residues can only be removed mechanically.

Storage

12 months

(cool, frost-free and dry, +5°C to +25°C in the original container).

From 24 August 2023, appropriate training must be provided prior to industrial or commercial use.

Legal notice

The above information, in particular the suggestions for processing and use of our products, are based on our knowledge and experience under normal circumstances, provided that the products have been stored and applied correctly. Due to the different materials, substrates and divergent working conditions, a guarantee of a working result or a liability, regardless of the legal relationship, cannot be justified on the basis of these instructions or verbal advice, unless we are accused of intent or gross negligence in this respect. In this respect, the user must prove that all knowledge necessary for a proper and promising assessment by BKM was provided to BKM in writing, in time and in full. The user must check the suitability of the products for the intended application. We reserve the right to make changes to product specifications.

Proprietary rights of third parties must be respected.

The latest product data sheet applies and must be requested from us. The responsibility for the successful application of our products lies with the user, as the use is beyond our control. However, we ensure the quality of our products in accordance with our conditions of sale and delivery, without guaranteeing the success of their application. Our data sheets represent advice based on our best knowledge, but no obligation can be derived from them. Our written consent is required to guarantee properties and application possibilities that go beyond the information recorded in the data sheets.

Further information can be found at:

www.bkm-mannesmann.de