



BAYCOPUR-1K

One Component - Water Reactive - Foaming Polyurethane Injection Resin

Description:

BAYCOPUR-1K is a highly reactive, one component injection material to stop water leakage through cracks or porous media.

Properties:

- BAYCOPUR-1K foams with water contact by high increase in volume and becomes a firm viscoelastic foam, which seals temporarily against high hydrostatic pressure with a high flow rate.
- Suitable for potable water applications. BS 6920 CERTIFIED
- BAYCOPUR-1K is resistant against acids and alkalis and attacks neither bitumen nor joint tapes.
- In case of very dry surfaces the material does not foam immediately but it hardens slowly due to the steady addition of existing air resp. soil moisture.

Areas of application:

BAYCOPUR-1K is used for

- The injection of water bearing cracks and joints in concrete, masonry and soil.
- Stoppage of water inflows from cracks, joints, etc.
- Compacting of granular stones and soil.
- For soil stabilization and anchoring in gravel.
- In pre-injection to sandy grounds and on rocks with cracks.
- Stopping the waters leaking on tunnel coating concretes and diaphragm walls.

Technical Properties:

Basis: Polyurethane resin
Catalyst
Colour: PU Resin – brown
Catalyst – yellowish

Viscosity at +25°C 300 ± 50 mPa·S
Density: approx. 1,18 ± 0,02 g/cm³
at 25°C

Minimum
reaction temperature: > 5°C
Recommended
processing temperature: at least 15°C up to 30°C

Reaction time *):

Start of foaming:

at +5°C: approx. 100 sec.
at +10°C: approx. 70 sec.
at +15°C: approx. 30 sec.
at +20°C: approx. 18 sec.

End of foaming:

At +5°C: approx. 4 min. 50 sec.
At +10°C: approx. 3 min. 40 sec.
At +15°C: approx. 2 min. 30sec.
At +20°C: approx. 100 sec.

Note: the reaction times had been determined with addition of 10% water and 10% accelerator.

Foaming factor (*) at

+5°C to +25°C: 25 - 30

*) in case of free foaming: The reaction times, foam quantity and foam properties depend on the water quantity, surface of the crack flanks resp. the stones, their distribution in the BAYCOPUR-1K pressure and other factors.

Packaging:

BAYCOPUR-1K A-component: 25 kg
drum
BAYCOPUR-1K B-component (Catalyst): 2,5 kg
drum

Product preparation:

BAYCOPUR-1K reacts with the air humidity and with water when mixed with 2-10% catalyst (B

Component). Therefore, a film may form on the surface of the liquid in opened packs which does not affect the injection procedure.

Generally, BAYCOPUR-1K is injected into the water bearing areas by means of injection nozzles and hand press motor-driven pumps.

In contact with water BAYCOPUR-1K foams up strongly and hardens.

If the zone to be waterproofed contains insufficient water, additional injection of water - preliminarily or Subsequently – will support the reaction and hardening of BAYCOPUR-1K.

Method of application:

1. Existing injection route have to be bored in a distance of approx. 25 cm.
2. The boreholes have to be cleaned with oil free pressure air from the dust.
3. Place the injection packers.
4. Inject BAYCOPUR-1K with the suitable injection equipment. Vertical cracks: start the injection from the bottom. Horizontal cracks: start the injection from the left side.
5. If necessary remove the injection packers after thorough hardening of BAYCOPUR-1K and close the boreholes with a cement-based repair mortar, if necessary, level them up to the concrete surface.

Cleaning & Equipment Maintenance:

Clean tools properly and immediately after use and thoroughly with a suitable cleaning agent. After work is finished or in case of longer interruptions the injection equipment is to be cleaned. Material must not dry out in the equipment and plug up vital machine components. The cleaning resp. solvent agent should have a flash point exceeding +21° C. The procedure is as follows:

- Pump off the remaining injection material out of the injection unit.
- Rinse the top container with cleaning agent.
- Clean the injection pump, the top container and the tubes for 5 to 10 minutes with cleaning agent in circulation.
- Afterwards pump the cleaning mixture into a container and rinse again with cleaning agent.

- In case of longer resting times the pump, the top container and the tubes have to be filled with a flushing oil.

Storage/Shelf life:

In dark location, from +5° C to +25° C, 12 months in original packaging

Health & Safety:

Once cured BAYCOPUR-1K is physiologically harmless.

The liquid component is harmful; Symbol Xn, Xi. In any case the government health and safety protective directive, data sheet M 044, should be observed as well as the advice on the packaging.

Important advice:

Protect areas which are not to be treated against the influences of BAYCOPUR-1K.

Applications which are not clearly explained in this data sheet may only be carried out with and written confirmation from our Technical Service Department.

Disposal: Liquid remainders: EAK 08 01 11 paints and lacquers containing organic solvents or other dangerous substances.

Cured product remainders: EAK 17 02 03 plastics.

See valid EC-safety data sheet.