



BAYCOPUR-1K/FLEX

One Component - Water Reactive - Flexible Foaming Polyurethane Injection Resin

Description:

BAYCOPUR-1K/FLEX is a highly reactive, non-shrink flexible foaming, one component injection material to stop water leakage through cracks or porous media.

Properties:

- BAYCOPUR-1K/FLEX foams with water contact by high increase in volume and becomes a flexible foam, which seals against high hydrostatic pressure with a high flow rate.
- BAYCOPUR-1K/FLEX 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/FLEX 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 stabilisation 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 – light brown

Viscosity at +25°C Resin : 817mPa·S

Viscosity at +25°C Catalyst : 9mPa·S

Density Resin : 1,07 g/cm³

Density Catalyst : approx. 1,04 g/cm³

Recommended

processing temperature: at least 15°C up to 30°C

Reaction time *):

Start of foaming:

at +10°C: approx. 114 sec.

at +15°C: approx. 48 sec.

at +20°C: approx. 40 sec.

at +25°C: approx. 37 sec.

End of foaming:

At +10°C: approx. 455 sec.

At +15°C: approx. 369 sec.

At +20°C: approx. 190 sec.

At +25°C: approx. 180 sec.

Note: The reaction times had been determined with addition of 35g water, 150g resin and 9% accelerator.

Free expansion at

+5°C to +25°C: 800% - 1100%

*) 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/FLEX pressure and other factors.

Packaging:

BAYCOPUR-1K/FLEX A-component: 25 kg

BAYCOPUR-1K/FLEX B-component (Catalyst): 2, kg

Product preparation:

BAYCOPUR-1K/FLEX reacts with the air humidity and with water when mixed with 6-10% 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/FLEX is injected into the water bearing areas by means of injection nozzles and motor-driven pumps. In contact with water BAYCOPUR-1K/FLEX 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/FLEX.

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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/FLEX 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/FLEX and close the boreholes with BAYCOCRET-RS, 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.

- Before the injection unit is used again the oil has to be removed.

Health & Safety:

Once cured BAYCOPUR-1K/FLEX 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/FLEX.

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.

