



# BAYCOPUR-3GF

## Highly Reactive, Solvent-free, Two Component Polyurethane Injection Resin

### Description:

BAYCOPUR-3GF is a very fast-reacting, two component polyurethane injection resin.

### Properties:

- BAYCOPUR-3GF is a very highly reactive, two component modified isocyanates.
- BAYCOPUR-3GF makes ideal waterproofing against hydrostatic pressure in case of low to high water flow speeds under the most difficult above-water and underwater conditions.
- BAYCOPUR-3GF has a very short gel time.
- Foaming of material limited to area of water contact, with material behind this forming compact PU mass.
- In absence of water, there is no foaming; material cures to resin with very high physical properties.

### Areas of application:

BAYCOPUR-3GF is used for waterproofing and consolidation of dry to water-bearing soft ground, rock, concrete and masonry etc.

BAYCOPUR-3GF is used for sealing against water ingress into excavations, tunnels, hydraulic structures.

### Technical Properties:

Basis: 2-comp. polyurethane resin  
Colour: Yellowish-brown

Density at +23°C: 1,1 g/cm<sup>3</sup>  
Viscosity at +23°C: 300 - 400 mPa·S  
\* Flexural Compressive Strength: 40-60 N/mm<sup>2</sup>  
\* Compressive Strength: 40-60 N/mm<sup>2</sup>  
Mixing Ratio: 1:1

Start of Reaction(A+B) +5°C to +25°C : 5-16 sec.

Gel Time(A+B) at +5°C to +25°C: 160-240 sec.

\* Although for the PU resins such testing methods cannot be considered as relevant such as for concrete or mortars.

Foaming factor (\*) at  
+5°C to +25°C: 25 – 30

**Note:** the foaming factor had been determined with addition of 10% water.

### Packaging:

BAYCOPUR-3GF is supplied in set of 40 kg (18 kg A + 22 kg B)

### Product preparation:

BAYCOPUR-3GF reacts with or without water. Generally, BAYCOPUR-3GF is injected into the water bearing areas by means of injection nozzles by motor-driven pumps.

In contact with water BAYCOPUR-3GF foams up strongly and hardens. If there is no contact with water, forms a compact PU mass.

Component-A and Component-B are supplied in the correct ready-to-use volumetric proportions. The components are separately fed, in the ratio 1:1 by volume.

### Recommendations:

The gel and curing time are temperature dependent. The reaction between the components is significantly influenced by the ambient, material, ground and groundwater temperatures. A minimum application temperature of 5°C should be observed for individual components.

This product is moisture sensitive, always ensure that the containers are properly sealed during storage.

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## Method of application:

1. Injection holes have to be bored.
2. The boreholes have to be cleaned with oilfree pressure air from the dust.
3. Place the injection packers.
4. The components are separately fed to a static mixer located immediately upstream of the injection point.
5. Inject BAYCOPUR-3GF with the suitable injection equipment. Vertical position: start the injection from the bottom. Horizontal position: start the injection from the left side. 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.
- Before the injection unit is used again the oil has to be removed.

6. The mixed components react to form a solid polyurethane resin mass.
7. If necessary remove the injection packers after thorough hardening of BAYCOPUR-3GF and close

## Storage/Shelf life:

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

## Health & Safety:

Once cured BAYCOPUR-3GF is physiologically harmless.

The liquid component is harmful; Symbol Xn.

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:

Suitable protective equipment shall be worn.

Protect areas which are not to be treated against the influences of BAYCOPUR-3GF.

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 (MSDS).



AB-SCHOMBURG CONSTRUCTION CHEMICALS

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2163 - CPR – 0251

**TS EN 1504-5: 2008**  
**Two component, no solvent, polyurethane**  
**injection resin**

**BAYCOPUR-3GF**

PROPERTIES	PERFORMANCE
Watertightness	2X10 <sup>5</sup> Pa
Viscosity	330cP
Expansion Filling Ratio	$\Delta V$ 14dd →%9,8 $\Delta N$ 14dd→% 0,1
Penetrability	10Sn
Resistance to Water ratio	$\Delta V$ 14dd →%22 $\Delta W$ 14dd→% 0
Wetting-drying cycles	No change
Compatibility with concrete	Modulus of shear deformation %15
Our products do not contain radioactive substance	

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This technical data sheet is updated on regular basis. It is the user's responsibility to obtain the most recent issue.

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