

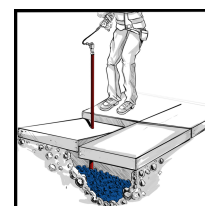
## **Technical Instruction**

### **Two-component polyurethane foam system for soil injection**

GeoPolymer.350 is a two-component, closed-cell polyurethane foam system characterized by high density, mechanical strength, and water resistance. The system is highly hydrophobic, solvent-free, and phthalate-free. It is designed for use in underground workings for sealing fractured rock mass, strengthening dry and wet structures, highly loosened rocks and coal seams, as well as sealing building structures / rock mass.

#### **Properties**

- ❖ Mixing ratio: 1:1 by volume
- ❖ High mechanical strength
- ❖ Accelerated reaction
- ❖ High foam density
- ❖ Excellent adhesion to various types of substrates
- ❖ No shrinkage after curing



#### **Areas of application**

- ❖ Soil stabilization
- ❖ Leveling and lifting of structures
- ❖ Filling voids
- ❖ Sinkhole remediation

#### **Technical product data**

	Component A	Component B	Composition A+B
Color	Straw-colored	Brown	Brown
Viscosity (23 °C)	500 ± 100 mPas	330 ± 100 mPas	400 ± 100 mPas
Density (23 °C)	~1,01 g/cm <sup>3</sup>	~1,23 g/cm <sup>3</sup>	~1,10 g/cm <sup>3</sup>
Volumetric mixing ratio A / B	100 / 100		
Weight mixing ratio A / B	100 / 122		
Foam expansion rate (v/v)	1 - 2,5		
Free-rise density	350 kg/m <sup>3</sup>		
Time required to reach 1 MPa strength	<30 min		

The data presented above were obtained under laboratory conditions and are indicative. Conducting the foaming process under different conditions (especially differing temperatures of components A and B) may result in characteristic times and final product density values that differ from those declared.

## Optional additional products

- ❖ Hamm-pack® PI-Cleaner – for cleaning injection pumps
- ❖ 2K / 3K injection pump with a 1:1 mixing ratio
- ❖ Hamm-pack injection packers / injection lances

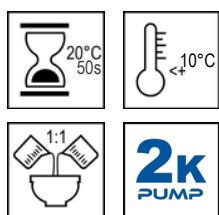
## Preparatory work before injection

- ❖ This product is intended for professional users only
- ❖ Before starting the injection, an assessment of the structure's condition must be carried out
- ❖ The substrate must be stable and compact, free from loose elements or substances that reduce adhesion, such as grease, oils, etc.
- ❖ Drill the holes correctly according to the type of work performed
- ❖ Install the injection packers / injection lances

## Resin preparation

- ❖ Before application, both components should be at a temperature of 10 °C – 30 °C
- ❖ Higher temperature accelerates the gel time; lower temperature slows the process

## Processing guidelines



Temperature	23 °C
Start time [s]	40
Gel time [s]	50 - 120
Tack-free time [s]	120

- ❖ Prepare the pump for application according to the manufacturer's instructions
- ❖ The pressure at which the resin is injected depends on the structure and the expected result

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## Cleaning after completion of work

- ❖ Clean the pump and equipment using PI-CLEANER.
- ❖ During cleaning, ensure that all required safety conditions are observed.
- ❖ When the cleaning agent starts to exit the injection hose, flush the system with an appropriate amount of PI-SAVER maintenance fluid.

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## Storage and shelf life

- ❖ Store in tightly closed, original containers at temperatures between 10 °C and 25 °C.
- ❖ Containers must be protected from moisture and direct sunlight.
- ❖ The shelf life under the conditions mentioned above is 6 months.

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## Safety

- ❖ Wear protective goggles, gloves and protective clothing. Avoid contact with skin and eyes.
- ❖ If the product comes into contact with the eyes: rinse thoroughly with clean water and consult a doctor.
- ❖ If the product comes into contact with the skin: rinse with plenty of water.
- ❖ All additional information is available in the product's safety data sheet.

**ResinBau GeoPolymer.350** is completely safe once the polymerization process is complete. When working with the material, always use appropriate protective clothing, goggles and gloves. It is important to avoid contact of the product with skin and eyes, and not to inhale vapors.

If the product comes into contact with the skin or eyes, immediately rinse the affected area with clean water and contact a medical professional. During application, do not eat, do not smoke and keep away from open flame.

Before starting work, carefully read all safety instructions. Strictly follow industry regulations regarding reactive resin handling and applicable chemical guidelines (MOO4 / MO23).

Your safety is the priority — take care of yourself and those around you!