

GEOGROUT SEAL

Properties:

GEOGROUT SEAL is a two-component injection system based on an nano-colloidal silicate suspension. Due to the hydrophilic nature of the product, the adhesion is very good even on damp substrates. The non-foaming product contains neither organic solvents nor toxic components.

Areas of application:

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- waterproofing pre-injection during underground work
- also suitable for post-injections
- Soil stabilizations
- Reduction of water ingress
- Slope stabilizations

Features and Benefits:

- low pH <9 mixture
- very low viscosity
- high work safety, due to low aggressiveness of the product
- no environmental damage
- good adhesion to damp substrates
- adjustable gel time by using an accelerator
- simple mixing and injection technique as for cement injections
- Durable waterproofing and consolidation

Technical Data:

Substance data of the components:

A-Component

Consistency	liquid
Colour	whitish clear
Specific density (20°C)	approx. 1.3 kg/l
Dyn. viscosity (20°C)	approx. 10 mPas
pH value (20°C)	9.5 to 9.8
SiO ₂ concentration	40 ± 1 %

B-Component

Consistency	liquid
Colour	colourless
Specific density (20°C)	approx. 1.07 kg/l
Dyn. viscosity (20°C)	approx. 1 mPas
pH value (20°C)	7

Mixed product (values depend on mixing ratio):

Consistency	liquid
Colour	whitish clear
Specific density (20°C)	approx. 1.25 kg/l
Dyn. viscosity (20°C)	approx. 5 mPas
pH-value (20°C)	approx. 9

Processing:

The B-component is added to the A-component in the required quantity under permanent stirring and mixed homogeneously. The mixture of *GEOGROUT SEAL* A-component and B-component can be processed between 5 and 40°C.

Injection is carried out with a 1K pump through a packer system into the layers to be consolidated. Injection pumps can be used, as they are also common for cement injections.

Screw pumps can also be used for slow backfilling of sand and gravel.

GEOGROUT SEAL can alternatively be injected with a 2K pump. In this case, a suitable static mixer must be used to ensure homogeneous mixing of the base component and accelerator.

Different gel times can be set depending on the B-component quantity.

B-Comp. [Vol. %]	Gel time [min] *
10	700
15	97
20	30
25	12
30	6

* measured at 8°C

Name	Comp. A Density [g/cm ³]	Comp. B Density [g/cm ³]	Tipping time T=23°C
40% standard	1.258	1.072	approx. 30 min
30% thinned	1.210	1.072	approx. 2h 30 min

Strength properties

At 40% after 1 day: 10⁻⁹ 0,5 N

At 30% after 1 day: 10⁻⁸ 0,3 N

Safety information:

GEOGROUT SEAL is classified as dangerous according to Regulation (EC) No 1272/2008 (CLP).

Before starting the processing it is therefore necessary to inform oneself by means of the safety data sheet about precautionary measures and safety advice information.

Packaging:

A-Component 210 l barrel
B-Component 210 l barrel

Storage:

If stored in a dry place between 5 and 35°C in the closed original containers, protected from heat and direct sunlight., the product can be stored for approx. 18 months.

The use of products that have been stored for a longer period of time is not recommended unless prior approval has been obtained from TPH. This Approval can only be obtained by checking the product specification of the original product. goods by the QA department of TPH.

Disposal:

Small quantities of cured product residues can be disposed of as normal domestic waste. Dispose of not cured product components must be effected in accordance with the corresponding local regulations. For further information please refer to the material safety data sheets.

Test certificates:

Determination of identifying properties of a silicate gel; MFPA Leipzig 2021

Investigation of the elution behavior of an injection resin on silicate gels; MFPA Leipzig 2022

Determination of geotechnical parameters of the injection material *PSGi GEOGROUT SEAL*; MFPA Leipzig 2022

General test certificate issued by the building authorities - Silicate gel "*GEOGROUT SEAL*" for pressing into the substrate; DIBt 2022

Determination of geotechnical parameters on the injection material *GEOGROUT SEAL*; MFPA Leipzig 2022

Legal notice:

The correct and thus successful application of our products is not subject to our control. A guarantee can be issued for the quality of our products within the framework of our sales and supply conditions, however not for successful processing. All data and specifications in this specification sheet are based on the present state of the art and the right to changes and adaptations for the sake of development remains explicitly reserved. The consumption specifications designated by us can be only average empirical values, where deviations are possible on an individual basis and therefore cannot be excluded by us.

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