

# Fischer GeoSecure®

Thermally optimised, magnetically doped grouting material especially for geothermal probes, more safety through measurability in the annulus, suitable for use with sulphate-aggressive groundwater



- ✓ Control test for backfilling of the annulus is possible at any time
- ✓ For sulphate-aggressive groundwater Especially for geothermal drilling in case of sulphate-aggressive groundwater.
- ✓ Conforms to VDI 4640 Thermal use of the subsoil, sheet 2.
- ✓ Rarely post-grouting necessary Efficient and economical grouting.
- ✓ Frost resistance According to DIN CEN/TS 12390-9.
- ✓ Very high thermal conductivity Thermally optimised with a thermal conductivity  $\geq 2.40$  W/mK.
- ✓ Resistance to seawater and carbon dioxide Resistance to sea water and carbon dioxide (CO<sub>2</sub>).

## Fields of application

Fischer GeoSecure® is a magnetically doped building material, therefore the control measurements are possible at any time. It has been specially developed for backfilling geothermal boreholes in sulphate-aggressive groundwater and combines all positive properties in one product. Generally suitable for backfilling of the cavity and soil consolidation.

Suitable area of application	Can be used in any surface.
Mixing ratio	6.25 l of water: 25 kg of Fischer GeoSecure® for compulsory mixers or 10.0 l of water: 25 kg of Fischer GeoSecure® for colloidal mixers. Pay attention to the precise water proportioning.
Processing time	Process quickly after mixing.
Processing temperature	Can be processed from +5 °C to max. +25 °C
Consumption	1520 kg of Fischer GeoSecure® per m <sup>3</sup>
Productivity	720 l/t 18.0 l/25 kg Sack
Flow spread	215 mm (DIN EN 12350 Part 5)
Marsh funnel time	71 sec.
Suspension density	Laboratory value: 1.9 kg/dm <sup>3</sup> On-site value: $\geq 1.88$ kg/dm
Thermal conductivity	$\geq 2.40$ W/mK (set backfilling compound)
Compressive strength	$> 10.0$ N/mm <sup>2</sup>
Water permeability coefficient kf	$< 10^{-9}$ m/s
Tools / Equipment	Fischer GeoSecure® can be mixed to a pumpable suspension after adding clean water in the standard mixing systems. The mixing time depends on the mixer, but should be selected until a uniform consistency is achieved.
Storage	Can be stored for approx. 4 months in the unopened original container on a pallet.
Delivery Form	25 kg sack /42 sack per Euro pallet + Big Bags
Notes about your safety	Contains cement, highly alkaline on reaction with moisture/water, therefore protect skin and eyes. In case of contact rinse thoroughly with water. In case of eye contact, consult a doctor. Not subject to classification according to the Ordinance on Hazardous Substances. Please note the safety data sheet for Fischer GeoSecure®.
Disclaimer	The above specifications are applicable for the tests under laboratory conditions with the usual metrological tolerances. These tests were carried out to investigate the suitability of the products with regard to the field of application. They are non-binding and do not release the recipient of the declaration from its own tests and trials. As a result of the absence of features and/or properties, we do not accept any responsibility; nor it is possible to derive any claims for compensation.