

Colloidal Silica for Soil and Rock Injection

DESCRIPTION

GeoTek CS is an environmentally friendly, highly stable, single component, ultra-low viscosity colloidal silica primarily used for injection into sands, silts, and fine joints and fissures in rock strata. GeoTek CS is available in three grades with varying SiO₂ content.

By adjusting the accelerator dosage, GeoTek CS can be used where very slow migration and penetration capabilities are required. The chemical properties and hydrophilic nature of GeoTek CS, ensures excellent adhesion to wet / saturated surfaces.

KEY BENEFITS

- › Single component, low viscosity
- › Good adhesion to wet surfaces
- › Solvent-free and environment friendly
- › Adjustable gel time
- › Standard grouting equipment can be used
- › Can clean with water

TYPICAL APPLICATIONS

- › Pre-injection of rock, sand and silt strata
- › Consolidation of soil
- › Passive ground stabilisation

TECHNICAL DATA

GeoTek CS				
	GeoTek CS20	GeoTek CS30	GeoTek CS40	GeoTek CS Accelerator
Form	Liquid	Liquid	Liquid	Liquid
Density (g/cm ³)	1.1	1.2	1.3	1.07
Viscosity (cP)	13	5	16	2
SiO ₂ (%)	15	30	40	-
pH Value	9 - 10	9 - 10	9 - 10	6 - 7
All at 25°C				

All technical data state herein is based on tests carried out under laboratory conditions.

APPLICATION GUIDELINES

Pre-determine the required gel time of GeoTek CS. Results based on GeoTek CS30 and ambient temperature of 20°C.

Accelerator Volume	10%	15%	20%
Gel time achieved	55 min	25 min	4 - 5 min

Add the required dosage of accelerator to the GeoTek CS whilst agitating and ensure it is well mixed prior to commencement of injection.

Avoid over mixing (2 minutes is sufficient). Pump the GeoTek CS uniformly through an injection packer using any kind of grout pump, such as a mono type, diaphragm type or piston type pump.

Note: A series of Grout Packers are available for selection. Contact your local Normet representative for technical installation advice.

PACKAGING

GeoTek CS and GeoTek CS Accelerator are available in 20 litre pails, 200 litre drums and 1000 litre IBC tanks. Packaging size may vary subject to local regulations and requirements.

STORAGE

GeoTek CS should be stored at room temperature above 5°C, kept dry and out of direct sunlight. If these conditions are maintained and the product packaging is unopened, then a shelf life of one year can be expected.

HEALTH & SAFETY

GeoTek CS should only be used as directed. We always recommend that the Safety Data Sheet (SDS) is carefully read prior to application of the material. Our recommendations for protective equipment should be strictly adhered to for your personal protection. The Safety Data Sheet is available upon request from your local Normet representative.