

# Geoflex S

Silicate Resin for Application in Mining  
and Tunneling



Solutions from Materials Technology





## Geoflex S - Flexible and Non-Foaming

In tunnel construction and civil work, stability problems can be solved by the injection of quick-setting resins.

Geoflex S is an injection system that has demonstrated its suitability for the consolidation of unstable areas or convergences in tunneling. In combination with the self drilling bolts, such as Wiborex or FiReP GRP bolts, the Geoflex S injection system has contributed to increased safety both in mining and tunneling.

Geoflex S is a non-foaming elasticized dual component resin with excellent adhesion. It can be applied in cracks with widths larger than 0.15 mm.

The following applications are possible:

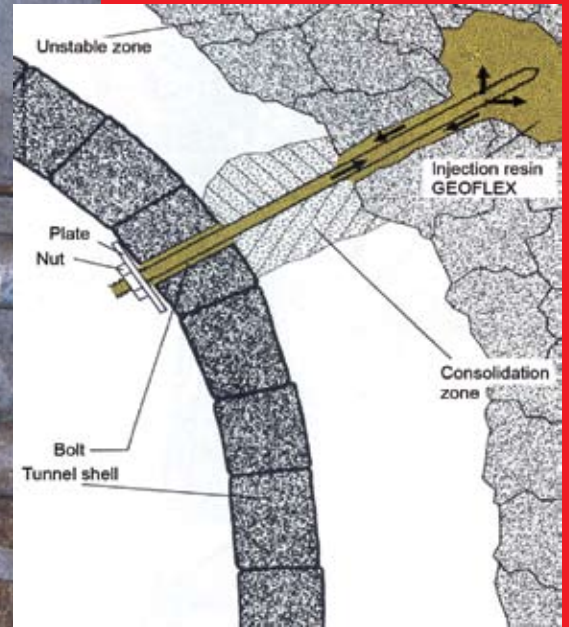
- Consolidation and stabilization of drift
- Bonding of injection bolts (e.g. Wiborex steel bolts or FiReP GRP bolts)

Advantages

- The resin reaches 90 % of the final strength after just 15 minutes
- The bonding strength is approx 5 MPa
- Geoflex S is non-foaming and flexible

Technical Data	Material Data of the Components		
	Unit	A	B
Density at 25 °C	kg/m <sup>3</sup>	1 480 ± 30	1 140 ± 30
Flame Point	° C	--	> 200
Viscosity at 25 °C	mPa*s	260 ± 60	140 ± 40
	Reaction Data (at 25 °C)		
Start of reaction		1'40" ± 30"	
End of reaction		3'15" ± 30"	
Shore factor		D 60	





Due to its flexibility, Geoflex S is able to deform during rock movement. Even in thin layers, Geoflex S reaches a bonding strength of more than 1 MPa in only a few minutes.

### Application

The two components of Geoflex S form a viscoplastic non-foaming silicate resin. If the components are thoroughly mixed, the mixture will not absorb water (e.g. from the rock) and can't be mixed with it. Cured resin is resistant against acid, brine, saline solutions and many organic solvents.

Both components are mixed in a 1:1 ratio by using a packer with an integrated static mixer and pumped in a predrilled borehole via a dual-component pump.





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