



# TECHNICAL DATA SHEET

# **RASCOflex US509F**

RASCOflex US509F is a highly reactive, heavily foaming, solvent-free 2-component urea-silicate resin system.

#### USF

RASCOflex US509F is a heavily foaming injection resin for the consolidation and stabilization of soft ground of soft ground, gravels, fissures and generally unstable ground and rock formations. Other applications include void filling in tunnels, drains, sewers, canals, hydraulic structures and special geotechnical works. RASCOflex US509F can also be injected as a preventive ground stabilization measure prior to excavation or TBM tunnelling.

# CE



#### **FEATURES**

- fast-reacting resin, rapid foaming, high flexibility
- compressible foam
- also foams in the absence of water
- high chemical stability
- high adhesion to void faces, even on wet surfaces
- low flammability
- mainly closed-cell end product

# **APPROVALS**

- REACh-assessed exposure scenarios: water contact, periodic inhalation, application
- REACh-tested raw materials, classed as harmless

# TECHNICAL/PHYSICAL DATA

	A-Component	<b>B-Component</b>	A:B Mix
Supplied form	liquid	liquid	
Material colour	colourless	dark brown	
Container type	canister	canister	
Container size	21,5 ltr/29 kg	21,5 ltr/26,6 kg	
	20 ltr/27 kg	20 ltr/24,8 kg	
Viscosity (DIN EN ISO 3219)	180 - 260 mPas	150 - 250 mPas	
Density (DIN EN ISO 2811)	1,35 kg/ltr (± 0,04)	1,24 kg/ltr (± 0,04)	
Flash point (DIN 53213)	> 230° C	> 230° C	
Hazardous goods/ADR	none	none	
Mixing ratio			1:1 (by volume)
Foam factor			approx. 30-fold
Foam density			approx. 45 kg/m³
Foaming start at 23°C			20 s (± 10 s)
Foaming end at 23°C			40 s (± 15 s)
Application temperature	from +4° C to +40° C		
Storage/shelf life	12 months in original	container, from +15° C to	o +35° C, in dry conditions

#### **APPLICATION**

The A and B components are supplied in the correct, ready-to-use volumetric proportions. The canisters shall be briefly shaken prior to use. Grouting is performed using an injection pump. The components are separately fed, in the ratio 1:1 by volume, to a static mixer located immediately upstream of the injection point. The mixed components react to form a silicate resin foam. The A component freezes at sub-zero temperatures and, in such cases, shall be fully thawed out prior to application.

# **GENERAL GUIDELINE**

The gel and curing times are temperature-dependent. The reaction between the components is significantly influenced by the ambient, material, ground and groundwater temperatures. A minimum application temperature of +15° C should be observed for the individual components.

The components shall be properly blended into a homogeneous mix. For this purpose, a static mixer of min. 300 mm length shall be used.

# **SAFETY NOTICE**

Suitable protective clothing, gloves and goggles shall be worn. An eyewash bottle shall be kept at hand. For further details, please consult the safety data

# **EXPERT REPORTS**

■ Impact on groundwater hygiene, Institute of Environmental Hygiene and Environmental Medicine, Gelsenkirchen, Germany

### SUPPLY/ADDITIVE

tem no.	Product	Container	Contents
1101.7211.001	RASCOflex US509F A-Comp	canister	21,5 ltr
1101.7212.001	RASCOflex US509F B-Comp	canister	21,5 ltr
1101.7211.002	RASCOflex US509F A-Comp	tin canister	20 ltr
1101.7212.002	RASCOflex US509F B-Comp	tin canister	20 ltr

LEGAL NOTICE: The information provided on the use and application of our products in this technical Rascor International Ltd. data sheet is based on the present state of our knowledge. The customer shall bear sole Gewerbestrasse 4 responsibility for the proper specification, application and use of the products in line with the intended CH-8162 Steinmaur / Switzerland purpose, project-specific conditions and external actions. The most recent technical data sheet shall Phone: +41 (0)44 857 11 11 apply. The current technical data sheets are available at www.rascor.com. Our General Terms of Fax: Business shall form an integral part of this technical data sheet.

+41 (0)44 857 11 00

www.rascor.com