



SealBoss® 2810 SilFoam Applications

Tunnel, Dam & Mining

- Pre-injection TBM tunnel, umbrella injection
- Filling and stabilization of cavities, voids, galleries in tunnel construction, coal and strata
- Consolidation and solidification of fractured rock, sands, gravel, coal
- Consolidation of fissured mountains, rocks, soils, sands
- Mine and ventilation seals
- Slope stabilization

SealBoss® 2810 SilFoam Description

Highly reactive, two component urea-silicate foam to fill & seal cavities and fractured geotechnical formations.

- Fast foaming and sealing properties
- Good adhesion on wet substrate
- Good chemical stability, FCH free
- Resistant to water, diluted acids and alkaline colloids
- Suitable for cutting and planing
- Environmentally sound
- Low Viscosity

Product Description

SealBoss® 2810 SilFoam is a fast-foaming, solvent-free, two-component urea-silicate expansion foam system with outstanding sealing and cavity filling properties. SealBoss® 2810 SilFoam reacts with or without the presence of water.

The product offer predominantly closed cell foam cells and good chemical stability. To achieve most satisfying and permanent results, a combination of SealBoss® 2810 SilFoam with other systems of our product line may be advised.

Ask your SealBoss® technician for details. The product is for professional use.

Installation Guidelines

SealBoss® 2810 SilFoam components are injected in the proportion of a 1:1 by volume ratio using a two component injection pump equipped with a static in-line mixer nozzle.

Component A must be stirred separately and thoroughly with a low-speed paddle mixer before use immediately before application. The prepared 1:1 ratio material is to be injected with the **SealBoss® IP2C Gel Injection Pump** with a silicate mixing tube of 8mm diameter, and 500mm length.

A static mixer blends both components and injects them into the mountain side, rock or soil. The curing reaction time of the urea-silicate foam formulation is significantly depending on temperature.

It is recommended that component A be mixed separately with a low speed mechanical mixer at 300 rev/minute max.

Store the components before processing at a minimum temperature of 15-20°C for at least 12 hours in order to reach the recommended processing temperature of between 15°C and 30°C.

Maintenance of Equipment

Tools and equipment must be cleaned immediately after use. Remove all excess product. Cured product is hard to remove. **SealBoss® R70 Pump Flush** is a solvent free, non-flammable cleaner, lubricator, pump and hose conditioner. Please refer to the product data sheet for detailed information.

Storage Temperature: If stored in dry conditions, in unopened, tightly closed original containers and within a temperature range of 50 to 85°F (10 to 30°C), the components have a shelf life of 12 months.

Recommended Applications and Limitations

Per the SealBoss® GeoTech application ranges, SealBoss® 2810 SilFoam is recommended for Rock Stabilization, Consolidation, Tunnel Face, and Umbrella Grouting, as well as small void filling and contact grouting. It is not used for a permanent sealing grout.



Technical Properties

	2810 A	2810 B	
Appearance	Liquid	Liquid	
Solids	100%	100%	
Density, g/cm ³	1.17	1.23	
Flash Point, °C / °F	N/A	218°C	
Viscosity, mPas	150	180	
Mixing Ratio	1	1	
Packaging	5 gal 55 gal	5 gal 55 gal	
Storage / Shelf Life	Unopened Containers Only at 10-30°C / 50-85°F in dry, sun free indoors 1 year - 5 gal / 55 gal	Unopened Containers Only at 10-30°C / 50-85°F in dry, sun free indoors 1 years	
Reaction			
Application Temperature	+4°C to +40°C		
Reaction Times, flow limit			
12°C	35 sec		
23°C	25 sec		
30°C	21 sec		
Foam Reaction	Start	End	Free Expansion Rate
12°C	20 sec	60 sec	35 fold
23°C	10 sec	43 sec	35 fold
30°C	8 sec	35 sec	30 fold
Density at max expansion	0.015 g/cm ³		

Safety

Always use safety gear in compliance with OSHA and all applicable local and job-site regulations While working with products. Handling of this product may result in spills, splashes, and airborne substances. Wear appropriate safety goggles, gloves and safety clothing at all times. During the pressure injection process a full face shield is advised for anybody within reach of product spill or blowout. Consider property in proximity of the application to prevent loss or damage. Store all materials and equipment safely and out of reach of children and animals! Observe container labels, SDS, applicable laws and regulations and all instructions before using the product and equipment. In case one of the components comes in contact with the skin, wash thoroughly with soap and water. Provide adequate ventilation in volume and pattern in working area. Further protection: emergency showers and eyewash stations. Get immediate medical attention as needed. Uncured products should be prevented from entering local drainage system and water courses. Spillage must be collected using absorbent materials such as sawdust and sand, and disposed of in accordance with local regulations.



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