



# TECHNICAL DATA SHEET

**2-component, solvent free urea-silicate foam designed for rapid cavity filling, concrete and strata consolidation**

## Applications

BB SF 2 is highly reactive two component urea-silicate injection system used for cavity filling, consolidation

- Filling cavity in concrete and strata.
- Consolidation of fractured rock, sands and gravel sand.
- Environment friendly.
- Low odor.
- Stabilization of cavities in tunnel.

## Properties

BB SF 2 is not expanding its volume or absorb water after mixing components.

- Good adhesion to wet substrates
- Very fast reacting material applied where foaming speed, flexibility and flame-retardant properties are required.
- Suitable for spray application
- Good chemical stability

## Physical data

- Typical values:

BB-SF2– comp A:

Color	Clear
Viscosity (20°C)	20-80 mPas
Density (20°C)	1,35-1,50 g/cm <sup>3</sup>
Storage temperature	Between 5 °C and 35°C

BB-SF2– comp B

Color	Dark Brown
Viscosity (20°C)	150-400 mPas
Density (20°C)	1,15-1,30 g/cm <sup>3</sup>
Storage temperature	Between 5°C and 35 °C

BB-SF2 –Mixture volume 1 :1:

Start reaction	10-30 s
Tack Free)	50
Foam Factor	20-25

## Uses

### 1. Resin preparation

Components A and B are delivered ready-to-use. They are injected in the proportion of 1:1 by volume using a two component injection pump equipped with a static in-line mixer

Please Note: The curing reaction time is significantly depending on the temperature of the PU resin, the rock and the ground water. Foam Factor is significantly dependent on water content in component A. Density range also depend on water content in component A and isocyanate reactive groups in component B.

Please store both components prior to application in at least 15°C

To achieve the best mixing of the components during injection, the inclusion of a static in-line mixer in connection with the mixing head is essential. The length of the static mixer should be min. 50cm long for correct mixing.

## 2. Substrate preparation

Check the quality of the substrate, injection means increased pressure on the substrate, so the substrate needs to be of sufficient strength.

Determine the packers according to the injection technique, substrate dimensions and type of pump. According to the selected packer and injection technique, the holes in the substrate need to be drilled. Tighten the packers well in order to make sure the injected pressure is distributed.

The distance and pattern of the packers/bore holes depend on the substrate structure and the injection technique. Please consult your BBL contact person for more information or the specific application manuals of the injection techniques.

## 3. Cleaning

If the components are liquid, the pump can be cleaned with BB CLEAN. Hence, we recommend, every time there is a stop of more than 15 minutes, and at the end of the injection works to flush the pumps with BB CLEAN, which is a cleaner with high flash point.

Hardened material needs to be cleaned with PU dissolver.

Packers can be removed, and the boreholes can be sealed with a fast-setting mortar.

## Packaging

BB-SF2– A component: 28,5 kg plastic jerry can

BB SF2– B component: 26 kg plastic jerry can

## Shelf Life

6 months after production date in the original, unopened and undamaged packaging, according to the storage instructions of each component (see technical data of this sheet). If the following recommendations are not followed, the shelf life of the material cannot be guaranteed.

## Safety Recommendations

- Wear safety and protection materials when handling this material (glasses, gloves, protective clothing).
- In the event of contact with the eyes: rinse thoroughly with clean water and consult a doctor.
- In the event of skin contact: rinse with water thoroughly.
- Mix residues of the BB-SF2 with sand and dispose of in accordance with local regulations.
- The resin can react with water or atmospheric humidity to form CO<sub>2</sub> gas. This can build up pressure in a closed package or container that has already been opened.
- Consult the Material Data Safety Sheet for more information on health and safety regulations.