

Silicate Injection Resins

WEBAC® SILfill

- ▶ Highly expanding silicate injection foam resin, suitable for mechanical machining, reacts with and without water contact

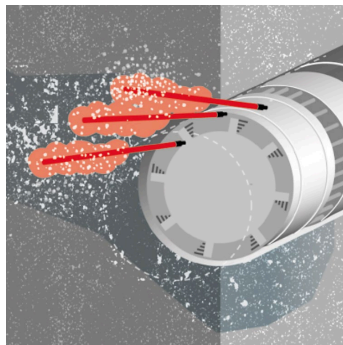
Range of application

- Umbrella injection in direct TMB areas
- Reinforcement ahead of the tunnel face and tunnel face stabilization
- Quick filling of cavities/voids, also in mining
- Subsoil and rock mass stabilization
- Soil solidification and stabilization in earthworks and dam building, especially in case of sandy formations
- Slope stabilization
- Solidification of karst and unconsolidated rock, gravel and crushed rock layers
- Sealing of foundation pits and tunnel systems

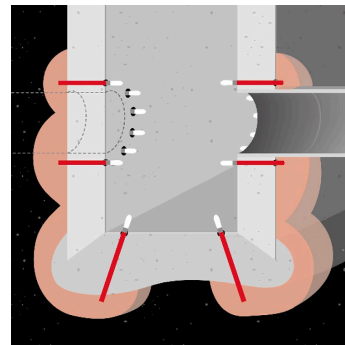
Properties

- High foaming factor and fine cellular structure
- No water required for foam reaction
- Suitable for cutting and planing
- Low viscosity
- Short reaction times
- Environmentally sound

Examples



Tunnel face consolidation



Water stop and volume replacement system for smaller cavities/voids

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Technical data	Values
Mixing ratio	1 : 1 parts by volume
Density 20 °C/68 °F (ISO 2811)	Comp. A ≈ 1.17 g/cm ³ Comp. B ≈ 1.23 g/cm ³
Viscosity, 20 °C/68 °F (ISO 3219)	Comp. A ≈ 150 mPa•s Comp. B ≈ 180 mPa•s
Reaction times flow limit (at continuous flow)	12 °C/54 °F ≈ 35 s 23 °C/73 °F ≈ 25 s 30 °C/86 °F ≈ 21 s
Foam reaction Start End Expansion	12 °C/54 °F ≈ 20 s ≈ 60 s ≈ 35-fold 23 °C/73 °F ≈ 10 s ≈ 43 s ≈ 35-fold 30 °C/86 °F ≈ 8 s ≈ 35 s ≈ 30-fold
Density measured at max. expansion in the foam interior (ISO 2811)	≈ 0.015 g/cm ³
Flashpoint (ISO 2719)	Comp. A not determinable* Comp. B ≈ 218 °C/424 °F
GISCODE	PU40
EPD	EPD-DBC-20130016-IBG1-DE
Exposure scenarios according to REACH	Assessment of industry standard application

* The flashpoint is not determinable due to water vapor development.

The specified data are values determined under laboratory conditions and are subject to a certain fluctuation. Deviations are possible in practice depending on the respective object situation.

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Mixing

Application by 2C pump

- Components A and B are delivered at a mixing ratio of 1 : 1 from respective containers directly with a 2C pump, the components are mixed homogenously in the mixing head



Application instruction

- We recommend storing the components at a minimum temperature of 15 °C/59 °F for at least 12 hours prior to use to ensure optimum application performance.
- Component A must be thoroughly stirred separately with a slow-running stirrer at max. 300 rpm (e.g. drill with paddle stirrer) before application or transfer.
- Stir component A again and again during processing
- Protect components from moisture penetration (skin formation, pump-damaging precipitates, foam formation due to moisture)
- Only use pure WEBAC material without any residues of cleaning agents or other impurity
- The reaction speed is influenced by the temperature of the material and the building structure – higher temperatures accelerate, lower temperatures slow down the reaction

Only use injection pumps for one type of material (silicate resin or polyurethane resin). When changing the material, the pump must be cleaned thoroughly and all material and cleaning agent must be removed entirely. For further information, please contact WEBAC.

WEBAC Quality Control recommends checking the product specification before processing products that have been stored for a longer period of time.



Application

- Depending on application

We will be pleased to advise you.
Please contact us! Phone +49 40 670 57-0



Cleaning

- When interrupting work for a short period of time the mixing head can be cleaned with component A of the injection material.
- When interrupting work for a longer period of time and after conclusion of the injection process it is necessary to rinse the hoses and the pistons of component A thoroughly with water, use **WEBAC® Cleaner A** for cleaning component B.
- Observe the technical data sheet of the cleaners used
- For detailed information refer to the technical data sheet of the cleaner and the operating manual of the injection pump used.

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Product data							
Application	<ul style="list-style-type: none"> Injection with 2C pump (WEBAC® IP 2K-40) Mixing tube, Ø 8 mm, l = 500 mm 						
Packing	<table border="0"> <tr> <td>Comp. A</td> <td>1.120 kg</td> <td>23 kg</td> </tr> <tr> <td>Comp. B</td> <td>1.200 kg</td> <td>24.8 kg</td> </tr> </table>	Comp. A	1.120 kg	23 kg	Comp. B	1.200 kg	24.8 kg
Comp. A	1.120 kg	23 kg					
Comp. B	1.200 kg	24.8 kg					
Storage	<ul style="list-style-type: none"> Between 5 °C/41 °F and 30 °C/86°F Protect from moisture In original, sealed containers 						



Test certificates

- Test certificate (for drinking water) according to KTW recommendations (German Federal Health Gazette): D1 (large sealing of surfaces)
- Assessment and effects of construction products on soil and ground water according to DIBt code of practice



Occupational safety

The safety regulations of the industrial trade associations and the WEBAC Safety Data Sheets are to be observed at all times when working with this product. Safety data sheets according to Regulation (EC) No. 1907/2006 (REACH) must be accessible to all persons responsible for occupational safety, health protection and the handling of materials. For further information, please see the separate information sheet "Occupational Safety" in our product catalog or www.webac-grouts.com.



Waste Disposal

In Germany, empty containers can be disposed of via "Interseroh Dienstleistungs GmbH" observing the respective terms and conditions. It is not possible to dispose of containers at production facilities or delivery warehouses. For more detailed information, please see the separate information sheet "Information on the disposal and return of WEBAC packaging" in our product catalog or www.webac-grouts.com and the safety data sheets.

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