

## PRODUCT DATA SHEET

# SikaInject®-680

Highly Reactive, Thixotropic Polyurea Silicate Injection Resin

### DESCRIPTION

SikaInject®-680 is a fast reacting, thixotropic 2-component polyurea silicate injection resin specifically designed for rock bolt anchoring (RBA) installations.

### USES

SikaInject®-680 may only be used by experienced professionals.

- Resin-into-bolt rock bolting at all angles
- Bolt-into-resin rock bolting at all angles
- Suitable for steel and glass-fiber bolts

### CHARACTERISTICS / ADVANTAGES

- Secure and precise injection due to its thixotropic properties
- Over head application without additional sealing
- Flexibility in application and long-distance pumping capacity
- Penetrates cracks down to 0.14 mm
- Increased reliability due to its full-size grouting
- Safe and easy mixing, even in low temperatures > 5°C
- High structural strength combined with flexibility
- Good adhesion to damp and low friction substrates
- Volume-stable, no expansion upon water contact, no water absorption
- Fast curing and fast strength development = increased work safety
- Fire resistant according to DIN 4102-2 Class B2

### PRODUCT INFORMATION

|                           |  |
|---------------------------|--|
| <b>Packaging</b>          | 1000 l IBC   |
| <b>Colour</b>             | Part A: Colorless, liquid<br>Part B: Dark brown, liquid  |
| <b>Shelf Life</b>         | 24 months from date of production  |
| <b>Storage Conditions</b> | The product must be stored in original, unopened and undamaged sealed packaging in dry conditions at temperature between +5 °C and +35 °C. |
| <b>Density</b>            | Part A: 1.39 kg/l (20°C)<br>Part B: 1.18 kg/l (20°C)   |
| <b>Viscosity</b>          | Part A: 490 mPa.s (23°C)<br>Part B: 150 mPa.s (23°C)   |

# TECHNICAL INFORMATION

|                      |                                   |
|----------------------|-----------------------------------|
| Compressive Strength | > 35 MPa (23°C)                   |
| Pull-Out Resistance  | > 320 kN (600 mm, acc. DIN 21521) |
| Expansion            | 1 (foam expansion factor)         |
| Resistance to fire   | Class B2 (DIN 4102-2)             |

# APPLICATION INFORMATION

|               |  |
|---------------|--|
| Mixing Ratio  | 1:1 parts by volume  |
| Reaction time | 160 s - 200 s (setting time, 23°C), thixotropic effect = immediately |

## BASIS OF PRODUCT DATA

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

## ECOLOGY HEALTH AND SAFETY

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Safety Data Sheet (SDS) containing physical, ecological, toxicological and other safety-related data.

## APPLICATION INSTRUCTIONS

### MIXING

Part A and part B are delivered ready to use. Inject them in mixing ratio of 1:1 parts by volume using a 2-component injection pump equipped with a static in-line mixer nozzle. For optimal mixing of the components use a min. 32 cm static-in-line mixer in connection with the mixing head.

The static mixer should at least consist of 16 cross-mixing elements.

Note: curing time is depends on temperature of product and ground. Store both components prior to application at least at +5°C.

## CLEANING OF TOOLS

- For short breaks in the injection procedure, pump part A through the in-line static mixer nozzle
- After the injection process rinse pump with suitable cleaning agent (e.g. SikaInject®-CL2) or water-free low-viscosity hydraulic oil
- Flush pump and injection hoses until SikaInject®-680 is completely washed out
- Store pump and hoses filled with oil and seal all openings

## LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the application fields.

## LEGAL NOTES

The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request. It may be necessary to adapt the above disclaimer to specific local laws and regulations. Any changes to this disclaimer may only be implemented with permission of Sika® Corporate Legal in Baar.

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