

SOLID SEAL FLEX

Properties:

SOLID SEAL FLEX is a two-component, non-foaming, slightly flexible injection resin based on silicate for grouting of water bearing cracks being > 0.2 mm as well as for ground and rock stabilisation.

SOLID SEAL FLEX is mainly used in civil engineering, tunneling and mining.

Mixing of A and B component results in a viscous emulsion, which does not absorb any further water of the field of injection. Due to its high density it pushes excess water in front of itself.

Technical Data:

Substance data of components:

Component A

| | | |
|-----------------------|--------------------------------|-------------------|
| Consistency | liquid | |
| Colour | colourless | |
| Odour | characteristic | |
| Spec. density (23°C) | approx. 1.41 g/cm ³ | DIN EN ISO 2811-1 |
| Dyn. viscosity (23°C) | approx. 150 mPas | DIN EN ISO 2555 |

Component B

| | | |
|-----------------------|--------------------------------|-------------------|
| Consistency | liquid | |
| Colour | brown | |
| Odour | characteristic | |
| Spec. density (23°C) | approx. 1.11 g/cm ³ | DIN EN ISO 2811-1 |
| Dyn. viscosity (23°C) | approx. 250 mPas | DIN EN ISO 2555 |

Mixture of A- and B-component:

| | | |
|------------------------|-------------------------|-----------------------|
| Processing temperature | 15 - 30°C | substrate temperature |
| Mixing ratio A : B | 1 : 1 (parts by volume) | |

Reaction data (at 23°C):

| | | |
|----------------------------|----------------|------------|
| String gel time (Pot-life) | approx. 60 s | ASTM D7487 |
| Final curing | approx. 20 min | |

Properties of silicate resin:

| | | |
|----------------------|------------------------------|----------------|
| Compressive strength | | DIN EN 12190 |
| 2 h | approx. 18 N/mm ² | |
| 1 d | approx. 22 N/mm ² | |
| 7 d | approx. 25 N/mm ² | |
| E-modulus | approx. 75 MPa | DIN EN ISO 527 |
| Tensile strength | approx. 6,0 MPa | DIN EN ISO 527 |
| Elongation at break | approx. 10 % | DIN EN ISO 527 |

Processing:

Both components are taken directly from the original packaging by means of a 2K injection pump and mixed homogeneously in a static mixer. Injection is done over packer or injection lances.

Indicated injection pumps: **TPH INJECT PS 25-II**
TPH INJECT PS 5-II

The initial liquid material reaches quickly a non-liquid shape and cures in short time without foaming up.

Safety information:

SOLID SEAL FLEX components A and B are classified as hazardous according to Regulation (EC) 1272/2008 (CLP).

It is therefore necessary, before beginning processing, to become familiar with the precautions and safety advice as indicated in the material safety data sheet.

Packaging:

Component A 28 kg metal canister

Component B 24 kg metal canister

Bigger packaging on request.

Storage:

Shelf life at least 12 month in original packaging when stored in dry conditions between 15-25°C, protected from heat, frost and direct sunlight.

After the expiration the use of the product is generally not recommended, unless an approval has been provided by TPH. This approval can only be obtained by the quality assurance department of TPH releasing the material after verification of main properties being within specification.

Disposal:

Small quantities of cured product residues can be disposed of as normal domestic waste. Dispose of not cured product components must be effected in accordance with the corresponding local regulations. For further information please refer to the material safety data sheets.

Test certificates:

Examination of the leaching behaviour of an injection resin based on silicate -
SOLID SEAL FLEX (column trial referring to DIBt Guideline "Assessments
of the effects of construction products on soil and ground water"; MFPA
Leipzig 2010

Fire behaviour test of building products, Inflammability at directly flames according to DIN EN ISO 11925, part 2: 2002; MFPA Leipzig 2012

Classification report about fire behaviour according to DIN EN 13501-1:2007;
MFPA Leipzig 2012

**Legal notice:**

The correct and thus successful application of our products is not subject to our control. A guarantee can be issued for the quality of our products within the framework of our sales and supply conditions, however not for successful processing. All data and specifications in this specification sheet are based on the present state of the art and the right to changes and adaptations for the sake of development remains explicitly reserved. The consumption specifications designated by us can be only average empirical values, where deviations are possible on an individual basis and therefore cannot be excluded by us.

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