

TECHNICAL DATA SHEET

1-component (+CAT), low viscous, solvent-free polyurethane based injection system. Reacts in a flexible, closed cell, foam in combination with water. Designed for crack and joint sealing.

Applications

BB-FLEX C100 is an injection system used for sealing cracks and joints in concrete. Due to its low viscosity and variable reaction time, it can be used for sealing of:

- Sealing of cracks and joints (from 0,3 mm C100 to 40 mm)
- Sealing of water under high flows
- Injection of injectable hoses

Properties

- BB-FLEX C100 is a 1-component, polyurethane based injection system that needs sufficient water in order to react and transforms itself into a flexible, hydrophobic grout with closed cell structure.
- Good chemical resistance against many acids, bases, solvents, and fuels (check chemical resistance list)
- No shrinkage after curing.
- Free expansion: C100 to 20 times
- Non-toxic: does not contain solvents.
- Non-flammable.
- Excellent adhesion on mineral building materials such as concrete, cement and brick.
- Variable reaction time by adjusting the BB-FLEX C100 CAT. Even quicker reaction times can be obtained by adding the BB-FLEX C100 1K ACCELERATOR.

Physical data

- Typical values:

BB-FLEX C100 RESIN:

Color	Yellow
Viscosity (20°C)	215 mPas
Density (20°C)	1,1 g/cm ³
Flash point	>148 °C
Storage temperature	Between 10 °C and 30 °C

BB-FLEX C100 CAT:

Color	Yellow
Viscosity (20°C)	10 mPas
Density (20°C)	0,97 g/cm ³
Flash point	>148 °C
Storage temperature	Between 10 °C and 30 °C

BB-FLEX C100 Mixture:

Color	Yellow
Viscosity (20°C)	204 mPas
Density (20°C)	1,09 g/ cm ³
Min. application temp	5 °C (lower is possible with adapted techniques)
Expansion Volume	C100 to 20 times in volume

- Reaction times:

	6% CAT	10% CAT
15°C	Start: 40 sec End: 2 min 15 sec	Start: 35 sec End: 1 min 35 sec
25°C	Start: 20 sec End: 1 min 15 sec	Start: 15 sec End: 1 min 5 sec

BB-FLEX C100 reacted with 10% water (PH7)

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Uses

1. Resin preparation

Create 1 mixture with the BB-FLEX C100 RESIN and adequate quantity BB-FLEX C100 CAT. Depending on the ambient and structure temperature, the reaction times will vary (check 3. Technical data, Reaction times). The higher the temperature, the quicker the reaction time. Secondly the amount of water present in the structure will also influence the reaction time of the mixture. The reaction time of the mixture can be altered by changing the component BB-FLEX C100 CAT (check 3. Technical data, Reaction times). The more BB-FLEX C100 CAT is added, the quicker the reaction time. We recommend a maximum of 10% BB-FLEX C100 CAT to be added. For quicker reaction times, we recommend using the BB-FLEX C100 1K ACCELERATOR.

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 BB-FLEX contact person for more information or the specific application manuals of the injection techniques.

3. Injection

The BB-FLEX C100 mixture needs to be injected with a 1-component pump. The selected injection pressure is as low as possible. Start at the lowest point and increase until you see the resin flowing. Injection with low pressure ensure a deeper penetration of the resin and complete sealing of the structure.

Start injecting at the lowest point in case of a vertical application and at the widest point for a horizontal application. Open the valve of the gun, hold the pressure, and inject until the resin appears in the next packer. Stop pumping and proceed to the next packers. In order to make sure the material is penetrated in the full structure, opening and closing the valve and letting the material flow, can be advised. Continue the process until the whole structure is sealed.

4. Cleaning

As long as the components are liquid, the pump can be cleaned with BB-FLEX C100 CLEANER. 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-FLEX C100 CLEANER, 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 sealing with a fast-setting mortar.

For more details see application manual of the BB-FLEX C100 FLEX.

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Packaging

BB-FLEX C100 RESIN:	20 kg plastic jerry can 20 kg metal drum "easy waste" 1000 kg IBC
BB-FLEX C100 CAT:	2 kg plastic bucket 20 kg plastic jerry can

Shelf Life

24 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-FLEX C100 with sand and dispose of in accordance with local regulations.
- The resin can react with water or atmospheric humidity to form CO₂ gas. This can build C100 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.

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