

BET10® INJECTION

Low Viscosity Injection Resin

Product Technical Data Sheet



GENERAL FEATURES

DESCRIPTION

BET10® Injection is a two-component, solvent-free, low-viscosity, high-strength epoxy resin.

FIELDS OF APPLICATION

- It is used as an injection resin for repairing reinforced concrete, stone, and similar structures, repairing cracks up to 5 mm, and filling gaps between steel elements such as steel straps, lamellae, and reinforced concrete or stone for strengthening purposes.

ADVANTAGES

- It is solvent-free and can be applied in dry or humid environments.
- Can be used at low temperatures and has non-shrinking curing.
- Has high mechanical and adhesive strengths.
- Hard but not brittle.
- Low viscosity and can be injected with single-component pumps.

PREPARATION OF THE SURFACE

The concrete surface to be treated must be cleaned and cleared of dust, oil, and construction debris, and damaged and loose concrete pieces on the surface should be removed. The plaster on the surface should be completely removed, and all cracks should be identified and smoothed out. Additionally, if there is water flow on the surface, it should be plugged or drained appropriately. Depending on the width and depth characteristics of the cracks, holes should be drilled at suitable intervals on both sides. These holes should be drilled at a depth that can pass through the crack plane and at an angle of approximately 45 degrees. The holes should be cleaned of dust and particles by blowing air into them, and packers should be firmly placed. After all packers have been placed, the surroundings and cracks should be covered to ensure tightness and durability. The injection process should begin

APPLICATION

using the appropriate equipment no earlier than 12 hours after the application. This process should be adjusted according to the ambient and weather conditions.

MIXING

BET10® Injection is provided in sets according to the ready-mixed ratio. Before starting the mixture, make sure that the material temperatures are between +15 - +25 °C. Component B should be completely poured into component A, and make sure that there is no material left in component B. The mixture should be mixed with a mixer at a speed of approximately 300 rpm and with a suitable mixing tip, including the edges and the bottom of the package, until a homogeneous mixture is obtained without any unmixed material for at least 3 minutes.

APPLICATION

For cracks in horizontal surfaces, BET10® Injection can be applied to the crack surface. To do this, apply the product to the surface with a brush several times or pour it between a "dam" made on the two sides of the crack and allow it to fill by gravity. Cracks beneath the surface should be filled first with an appropriate cementitious mortar.

For cracks in vertical structures, the mixed BET10® Injection can be injected into the cracks under pressure using a single-component injection pump. Injection points (packers) are placed approximately 25 cm apart from the sides of the crack, and the surface of the crack between injection points is filled with an appropriate cementitious mortar during the injection process to prevent resin from coming out. Injection should always be done from bottom to top in vertical cracks. Once it is seen that the injection resin has come out of the next packer, the injection point is closed, and the process is continued from the next packer. After the injection process is completed, the injection points (packers) and the material covering the cracks between them should be removed.

TECHNICAL DATA

BET10® Injection Component A BET10® Injection Component B	Epoxy Resin
	Epoxy Hardener
Mixture Density	1,08 ± 0,05 kg/lt
Mixture Ratio	2,00 : 1,00
Viscosity	300-450 mPa.s
Compressive Strength (7 Days)	>60N/mm ² (TSE 196)
Flexural Strength (7 Days)	>25N/mm ² (TSE 196)
Adhesion Strength (7 Days)	>2,5N/mm ²
Pot Life (20°C)	25 Minutes
Finally Cured at (20°C)	7 Days
Application Temperature	+10°C - +35°C
Recoat Time	18 - 24 hours

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THINGS TO CONSIDER

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- Epoxy injection applications should only be carried out by expert applicators.
- The working and reaction times of resin-based systems are influenced by the ambient and surface temperature. Chemical reaction slows down at low temperatures, which extends pot life, the time for coating and working time. At the same time, increased viscosity leads to higher consumption. High temperatures increase the chemical reaction, and the above-mentioned times are shortened accordingly. The ambient and surface temperature must not fall below the allowed minimum temperature for the material to complete its cure.
- After the completion of the coating, the coating should be protected from direct water contact for at least 24 hours.
- During application, the ambient and surface temperature should not be below +5°C and above +35°C.
- Mixing must be done using suitable mechanical mixers. Hand mixing should not be used.
- In special cases (different weather conditions, various application areas, etc.), if any application that is not specified in the data sheet will be made, BET10® Construction Chemicals Technical Service should be consulted.

CLEANING OF TOOLS

After application, the tools and equipment used should be cleaned with solvent. Once cured, BET10® Injection can be mechanically removed from the surface.

PACKAGING

BET10® Injection
Ready-to-use 3 kg set

STORAGE

It should be stored in its original unopened packaging, in a cool and dry place, protected from frost. During short-term storage, no more than 3 pallets should be stacked on top of each other and shipped on a first-in, first-out basis. During long-term storage, pallets should not be stacked on top of each other.

SAFETY PRECAUTIONS

Preventive measures taken for conventional chemical products should be considered when using this product. After the work is completed or interrupted, hands should be washed thoroughly with plenty of water, and food, drink, and smoking should be avoided. Special safety information regarding the use and transportation of this product is available in the Material Safety Data Sheet. Relevant Health and Safety Information Documents should be consulted for complete information on health and safety issues. This product and its packaging should be disposed of in accordance with local laws and regulations. This responsibility belongs to the end user of the product.

SHELF LIFE

The shelf life is 18 months from the production date under appropriate storage conditions. Opened packages should be stored under appropriate conditions and used within one week.

DISCLAIMER

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