

SUPERFIX 50

Two-part, solvent-free, low viscosity injection epoxy resin.

Description

Two-part, solvent-free, low viscosity injection liquid, based on high strength epoxy resin. With zero shrinkage and excellent adhesion to concrete, mortar, stone, steel, wood etc. Used to fill and seal voids and cracks in structures such as bridges and other civil engineering buildings, industrial and residential buildings, e.g. columns, beams, foundations, walls, floors and water retaining structures. It forms an effective barrier against water infiltration and corrosion-promoting media and structurally bonds the concrete sections together.

Features - Benefits

- High resistance to common chemicals
- High hardness without showing friability
- Excellent adhesion & penetration
- Both components are supplied in containers ready to be mixed
- Achieve high final strength
- High compatibility even with substrates with high moisture content
- High compatibility with all standard building materials
- Wide range of heat resistant (-40 °C to +90 °C)
- Zero shrinkage
- Impervious to water
- High resistance to permanent presence of water
- Excellent adhesion between new and old concrete
- High protection to the metal from rusting

Examples of applications - Materials

Concrete, cement mortars, ceramics, brick, wood, epoxy, polyester materials, glass, steel, cast iron, aluminum, stone, metal, etc.

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Specifications

Form: thin liquid

Tint mixture: transparent yellowish

Chemical type: 2-component epoxy resin

Density (A + B): 1,10 kg / l

Recommended application temperature:
> 10 °C, < 30 °C

Shrinkage: zero

Viscosity:
10 °C → 1150 MPa.S
20 °C → 420 Mpa S
30 °C → 200 MPa.S

Working time:
5 °C → 130 min
10 °C → 85 min
30 °C → 15 min

Compressive Strength: 72 N/mm² after 7 days at 23 °C

Flexural strength: 64N/mm² after 7 days at 23 °C

Tensile strength: 35 N/mm² after 7 days at 23 °C

Adhesion to concrete: ≥ 4 N/mm² (100% crushing of concrete)

Modulus, flexural strength: 1600 N/mm² after 7 days,

Surface preparation

Provide sufficiently stable surfaces and remove loose, detached parts, dirt, grease, etc. Concretes which is to be applied with SUPERFIX 50 must be older than 28 days.

Mixture preparation

Components A and B are provided in containers ready to be mixed. Stir well the components A and B using a low speed of electric mixer until the mixture becomes homogeneous. For small amounts of material mixing can be done manually with wt % ratio of component A 70% and component B 30%.

Instructions for use

Sealing cracks - resin injections

Resin injections is a method of applying pressure to thinly liquid resin SUPERFIX 50 inside cracks of concrete to completely fill internal voids.

For the application of resin injections, the following procedure should be followed:

Thoroughly clean the crack and remove plaster residue or other coatings with the help of compressed air. Install nozzles which will pass the resin SUPERFIX 50 surface and fill the crack between them, with the help of epoxy paste SUPERFIX 30 (the distance from one nozzle to another must be 15-25 cm). Apply a thin resin SUPERFIX 50 under pressure into the crack using pump pressure 1 - 3 atm. For a horizontal crack start from one end. For a vertical crack, start from the lowest point. When you see resin from the next nozzle pressure and stop. Plug the first and follow the same process for all nozzles. The process is completed by removing the nozzle and the material surface sealing of the crack after 24 hours.

Reinforced bars anchoring

SUPERFIX 50 is suitable for the positioning and anchoring of reinforced rods. Apply SUPERFIX 50 on vertical holes or with small deviations from the vertical axle. The hole diameter D must be $D = \text{diameter of the rod (d)} + 4 \text{ mm}$ and the hole depth $h \geq 10 \cdot d$. Clean the holes after drilling with air under pressure to remove any residual from drilling process. Finally, fill the holes with SUPERFIX 50 at approximately half their depth. Immediately after use, clean application tools with water or dilute aqueous solution of ethyl alcohol 20% w/w.

Typical consumption

1.1 kg/m² / mm

Packaging

1kg and 9kg Metal containers (A + B)

Storage

In shady, preferably covered areas protected from frost, high temperature and sun exposure for at least 12 months.

Precautions and safety

We recommend the use of protective goggles and gloves when mixing and applying the material. After full maturation, the SUPERFIX 50 is completely safe.

Notes

Technical details, properties, recommendations and information on BAUER products are supplied in good faith. They are based on the company's research and experience, provided that they are stored and applied under normal conditions. As the method of using materials as well as project and environment conditions are beyond the control of the company in each individual application setting, the product user is held solely responsible for the result of application. No responsibility under any legitimate relationship can be substantiated against the company, based on the information set out hereunder. Product users are advised to refer to the latest revision of the technical manuals available.

Other information

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Zertifiziert nach DIN EN ISO 9001

