



TWO-COMPONENT FLUID EPOXY RESIN FOR ANCHORING STEEL BARS.



## PRODUCT DESCRIPTION

Epo Inject Bar100 is a solvent-free epoxy adhesive consisting of two pre-measured components, component A resin, and component B hardener that have to be mixed before use. Epo Inject Bar100 has the liquid consistency that can be applied by brush on both horizontal and vertical surfaces. Epo Inject Bar100 polymerizes without shrinkage and, after curing, is waterproof, possesses excellent dielectric properties and high mechanical characteristics in addition to its ability to bond concrete and steel. Epo Inject Bar100 meets the requirements defined by EN 1504-9 "Products and systems for the protection and repair of concrete structures.

## FIELD OF APPLICATION

- Anchoring metal structures and rebar.
- Anchoring bolts and tie-rods in existing concrete, stone, rock and steel structures exposed to vibrations and aggressive chemicals.

## LIMITATIONS

- Do not apply at temperatures lower than +5°C.
- Do not use on wet surfaces.
- Do not cast fresh concrete onto hardened Epo Inject Bar100.
- Do not use on dusty, crumbling or loose surfaces.

## APPLICATION PROCEDURE

### A) Preparation of the support

Before the application, the substrate must be perfectly clean, solid and strong. All loose and crumbling parts, dust, cement laitance and traces of form-release oils and paint must be eliminated by careful sandblasting or brushing. When applying the product to metal, remove any rust and grease residues beforehand, preferably by means of sandblasting to white metal.

### B) Preparing the product

The two components have to be mixed. Pour component B into component A and mix with a trowel for small quantities or with a drill fitted with a low speed stirrer for large batches until the mix is perfectly smooth and even. Do not use partial amounts to avoid the risk of accidental ratio errors that could prevent from curing.

### **C) Applying the product**

Epo Inject Bar100 can be applied with a flat trowel or a brush on dry or slightly damp concrete. It is advisable to let the product penetrate well into particularly uneven and porous areas so as to ensure perfect adhesion to the whole surface being treated. The subsequent layer of fresh concrete must be placed within the open times according to the temperature indicated in the technical data table. When Epo Inject Bar100 is used to seal cracks wider than 0.5 mm, simply placing is sufficient. In this case it is recommended to spread sand over the Epo Inject Bar100 surface in order to favor bonding of product that may be applied subsequently. If the cracks are narrower than 0.5 mm, they have to be widened and then dusted well before repair work with Epo Inject Bar100. Do not use Epo Inject Bar100 when the outside temperature of the substrate is lower than +5°C.

### **COVERAGE / CONSUMPTION**

Consumption varies, depending on irregularities in the substrate and the method used in application.

Generally:

- Construction joints with a rough substrate: 0.5-0.7 kg/m<sup>2</sup>
- Construction joints with a very uneven substrate: 1.0-2.0 kg/m<sup>2</sup>
- Sealing cracks: 1.35 kg/l per liter of cavity
- Bonding precast elements in concrete, or steel-and-concrete: 1.35 kg/m<sup>2</sup> per mm thickness

### **PACKAGING**

Epo Inject Bar100 is supplied in 1 Kg and 5 Kg metallic can A+B.

### **SHELF LIFE**

Original sealed bags of this product are guaranteed to be of first quality for 24 months if stored off of the ground in a dry area. High humidity will reduce the shelf life of the bagged product.

### **SAFETY INSTRUCTION**

DCI EPOXY 1000 DCI Epoxy 1000 component A is irritant for the skin and the eyes, both components A and B may cause sensitization in those subjects sensitive to such substances. DCI Epoxy 1000 component B is corrosive and may cause burns. The product contains low molecular weight epoxy resins that may cause sensitization if cross-contamination occurs with other epoxy compounds. When applying the product, we recommend the use of protective gloves and goggles and to take the usual precautions for handling chemical products. If the product comes into contact with the eyes or skin, wash immediately with plenty of clean water and seek medical attention. DCI Epoxy 1000 component A is also hazardous for aquatic life. Do not dispose of this product in the environment. For further and complete information about the safe use of our product please refer to the latest version of our Material Safety Data Sheet. **PRODUCT ONLY FOR PROFESSIONAL USE.**

# TECHNICAL DATA

Product identity		
	Component A	Component B
Consistency	Liquid	Liquid
Color	Transparent	Transparent
Density (Kg/Lt)	1.05	1.05
Dry solids content (%)	100	100
Brookfield viscosity (mPa.s)	80 (# F - 5 rpm)	65 (# F - 5 rpm)
Application data (at +23°C and 50% R.H.)		
Mixing ratio	4	1
Brookfield viscosity of mix (mPa.s)	100 (# F - 2.5 rpm)	
Density of the mix (kg/Lt)	1,05	
Pot life of mix	50 minutes	
Application temperature range	from +10°C to +30°C	
Open time (according to EN 1346)	60 minutes	
Adjustment time	4-5 hours	
Complete hardening	after 7 days	
Final performances		
Linear shrinkage (%)	0	
Compressive modulus of elasticity (N/mm²)	6,000	
Coefficient of thermal expansion	97 x 10 <sup>-6</sup> K <sup>-1</sup>	
Glass transition temperature	> +40°C	
Reaction to fire	B-s1, d0	
Bond strength on damp concrete according to EN 12636 (N/mm²)	5.2	
Concrete-steel bond strength (N/mm²)	4.8	
Concrete-Carboplate bond strength (N/mm²)	5.5	
Compressive strength (N/mm²)	90	
Shear strength (N/mm²)	10	



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