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Uw partner in restauratie en renovatie
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RC INJECT

2-COMPONENT THIN LIQUID EPOXY INJECTION RESIN

Concrete repair

ADVANTAGES OF RC INJECT

- ✓ Low viscosity
- ✓ Excellent adhesion to concrete and wood
- ✓ Simple mixing ratio

Description

RC INJECT is a two-component epoxy resin consisting of an epoxy resin (component A) and a hardener (component B) for injecting cracks in concrete and wood.

Substrate

The concrete must be at least 28 days old.

Application instructions

Before proceeding with the placement of the injection openings, the cracks on the surface are cleaned of all dust and dirt to make the crack fully visible.

The crack is then closed with a temporary seal which has such strength during injection that the resin cannot drain from the cracks and an even pressure is maintained in the injected section. The material used for this temporary seal is plaster, fast-hardening cement or resin.

After the injected epoxy resin has bonded, the sealant must be easy to remove and no traces should be left on the concrete surface. The injection ports are placed in the temporary seal without chopping, breaking or drilling. The distance between the openings is at least 10 to 30 cm. An additional opening will be placed at the branches of the cracks. Placing inspection openings is permitted.

Inject

Injection may only be carried out at a temperature higher than 10°C. The substrate (the construction to be injected) must also have a temperature of 10°C. The optimum use temperature is between 10°C and 25°C.

Moisture: injection is possible with dry, damp and wet crack edges. The crack width in which can be injected from 0,1 to 3-4 mm.

The injection always starts to send the injection resin from the bottom up from the lowest injection opening and expels the air as the crack filling progresses. During injection, the flow of the injection resin through any control ports should be continuously monitored. After the epoxy resin becomes visible at the next injection port, seal the first injection port, and then move the injection head to the next port.

This process is repeated until the entire crack has been closed. The injection techniques are very precise. That is why this product is best used by a recognized company.

Consumption

Depending on the crack.

Technical characteristics

Component A:

Epoxy equivalent:	180 ± 2 g/equi.
Epoxy number:	23,5% ± 0,5
Viscosity (at 25°C):	325 ± 50 mPa.s
Color according to Gardner:	< 3
Density (at 20°C):	1,11 ± 0,01 g/cm³
Refractive index (at 25°C):	1,532 ± 0,001

Component B:

Amine equivalent:	90 g/equi.
Viscosity (at 25°C):	300 ± 50 mPa.s
Color according to Gardner:	< 8
Density (at 20°C):	1,05 ± 0,01 g/cm³
Refractive index (at 25°C):	1,559 ± 0,001
Pot life (at +25°C):	Approximately 30 minutes
Mixing ratio (g):	Component A:B - 100:50

- Mechanical properties

For test measurements of the mechanical properties, test pieces of the size 120 x 15 x 10 mm are made. After a hardening of 7 days in normal climate, i.e. 23/50 DIN 50014, the following properties are measured:

Flexural strength:	93,0 N/mm²
Elongation at break:	8,5%
Deflection:	14,0 mm
Tensile strength:	59,0 N/mm²
Compressive strength:	96,0 N/mm²
Impact resistance:	29,0 mm N/mm²

- Viscosity A- and B-component

Measurement of viscosity with the Kugelfall viscometer according to Höppler (DIN 53015):

A-component	357 mPa.s/25°C	325 ± 50 mPa.s/25°C
B-component	330 mPa.s/25°C	300 ± 50 mPa.s/25°C

Measurement of viscosity with the Kugelfall viscometer according to Höppler (DIN 53015):

Temperature	A-component	B-component
30°C	260 mPa.s	220 mPa.s
25°C	380 mPa.s	340 mPa.s
20°C	570 mPa.s	530 mPa.s
15°C	850 mPa.s	870 mPa.s
10°C	1380 mPa.s	1600 mPa.s
5°C	2360 mPa.s	2800 mPa.s

Safety

Epoxy resins can be irritating to the skin and mucous membranes. It is therefore strongly recommended to wear gloves during use. In case of contact with eyes: rinse with plenty of water and consult a doctor. Always consult the safety data sheet.

Remarks

- The ideal ambient temperature is 15°C. At lower temperatures, a longer curing period should be taken into account. The ambient temperature must in any case be more than 10°C.
- No solvents may be added to the mixture, as this gives rise to stresses in the crack if the solvent wants to evaporate with an increase in temperature. The cracks in the concrete must be greater than 0,2 mm wide.

Cleaning of equipment

With RC THINNER immediately after use.

Storage / Shelf life

- Keep only in the original container in a cool, well-ventilated place.
- Shelf life: 1 year if in undamaged packaging, free from frost or heat, and stored dry.

Packaging

Set of 1 kg (item no. 70300)

Photos