

## RC PU-INJECT

### PU-INJECTION RESIN FOR PERMANENT WATER SEALING

#### Waterproofing



#### ADVANTAGES OF RC PU-INJECT

- ✓ Very low viscosity, product penetrates easily in hairline cracks
- ✓ Solvent-free
- ✓ High swelling: up to 2200%
- ✓ Semi-flexible
- ✓ Permanently elastic, can absorb limited movements

#### Description

RC PU-INJECT is a resin + catalyst system, water reactive, very low viscous and solvent free. Contains polyurethane injection resin that reacts in contact with water to form a semi-flexible closed cell foam. Ideally suited for stopping water leaks (cracks/tears) in concrete or brick structures. Use with 6-10% catalyst. Is injected with a one-component pump. The end product does not shrink or swell. Good compressive strength is obtained in a very short time.

#### Properties

- 2-components
- Reaction rate can be easily determined by adding catalyst between 6 and 10%
- Due to the closed cell structure of cured polyurethane resin, the cracks/joints are permanently sealed
- Low viscosity: product penetrates easily in hairline cracks (minimum 0.2 mm)
- The cured product is inert and chemically resistant

#### Application instructions

##### Preparation of substrate

- Remove contamination and surface finishes so that the crack pattern is clearly visible.
- Drill holes with a diameter depending on the injection nipple to be used. Drill at a 45° angle, preferably staggered around the crack. Drill the holes at a distance of approximately half the thickness of the concrete from the crack, in the direction of the crack.
- The depth of the drill hole should be approximately half the thickness of the concrete.
- The distance between the drill holes depends on the situation and normally varies between 15 and 90 cm.
- Insert the injection nipple into the drill hole to a depth of maximum 2/3 of the drilling depth. Tighten the injection nipple until it is snug enough.
- Flush the crack with water before injecting. This ensures that the substrate becomes dust-free and improves the penetration of the product into the crack. The water in the crack will activate the injected PU-resin.
- Preferably use separate pumps for water and resin injection to avoid blockage of the injection pump.
- The injection pump must be flushed with RC PU-CLEANER before the start of the injection so that it is sufficiently lubricated and dried.

### Mixing the product

Shake the catalyst well. Mix the resin and catalyst in a ratio of 6 to 10% catalyst depending on the desired reaction rate. 10% catalyst is used as standard.

### Inject

- Start the injection at the first injection nipple, starting at the lowest point and working upwards.
- Stop the injection when the resin reaches the next injection nipple.
- Continue to the next injection nipple and repeat the previous procedure.
- The drill holes can be filled with cement-based waterproof mortar (RC 221).
- Clean the pump and tools within 30 minutes with RC PU-CLEANER.

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### Consumption

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Depending on the depth and width of the crack.

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### Technical characteristics

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Uncured polyurethane resin		
Property	Value	Standard
Density	1,158 g/cm <sup>3</sup>	EN ISO 2811-2:2002
Viscosity	96 mPa.s	EN ISO 3219:1994
Isocyanate content	18,1 M.-%	EN 1242:2006
Flash point	> 150 °C	
Color	Bruin	

Accelerator		
Property	Value	Standard
Density	0,889 g/cm <sup>3</sup>	EN ISO 2811-2:2002
Viscosity	21 mPa.s	EN ISO 3219:1994
Flash point	> 150 °C	

Reaction speed		
% Catalyst	Reaction (sec)	Polymerization (sec)
6	15	70
8	12	55
10	9	45

Indication at 20°C, standard 10% catalyst. Free expansion: approximately 2200% of the initial volume.

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### Safety

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Wear protective gloves/protective clothing/eye and face protection. In case of skin or hair contact: take off immediately all contaminated clothing. Rinse skin with water/shower.

Consult the most recent safety data sheet.

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### Remarks

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- Mix RC PU-INJECT with the catalyst in the desired dosage. As long as there is no contact with water, the reaction will not start. Any contact with moisture can initiate or accelerate the reaction and cause the pump to block.
- Shake the catalyst before use.
- RC PU-INJECT stains other building materials, if necessary these should be adequately shielded.
- Always add the accelerator to maintain the elasticity of the RC PU-INJECT.
- May only be used by experienced professionals.

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## Cleaning of equipment

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After use of the injection pump, clean the pump with RC PU-CLEANER. RC PU-CLEANER is a cleaning product specially developed for cleaning polyurethane injection pumps. This product rinses thoroughly and does not affect the seals.

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## Storage / Shelf life

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To avoid problems, it is very important to understand that these materials are both temperature and moisture sensitive. Therefore, materials should be stored in an area with temperatures not exceeding 30°C or not lower than 10°C. The maximum shelf life is one year. All partly used drums should be covered by nitrogen and resealed to prevent the ingress of moisture.

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## Packaging

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- 1 kg injection resin and 0.070 kg of catalyst (item no. A11503)
  - 5 kg injection resin and 0.350 kg of catalyst (item no. A11504)
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## Photos

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## Equipment



Manual pump (art.nr. 121117)



(Injection nipple art.nr. 121001)



RC PU Cleaner

### Legal Notes

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