



0749 / EN 1504-5
U(S1)W(1)(1/2/3/4)(5/30)

TECHNICAL DATASHEET



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PC[®] 509 Z L ACRYL

Elastic acrylic injection resin with linear transformation of viscosity

1. Description

PC[®] 509 Z L Acryl is an elastic 4 component acrylic injection resin, especially designed for the injection or the re-injection of injection hoses. The gelification doesn't go suddenly as with other acrylic gels, but the viscosity increases in a linear way. This makes it possible to control the re-injection process of the injection hoses.

PC[®] 509 Z L Acryl has an excellent adhesion to the surface and the cured product swells in water.

2. Applications

PC[®] 509 Z L Acryl is an elastic 4 component acrylic injection product, especially designed for the (re)injection of injection hoses, curtain injections,...

3. Properties

- The **PC[®] 509 Z L Acryl** reacts into an elastic, durable and chemically resistant gel and swells in water.
- Penetrates deep into fine cracks.
- Good general chemical resistance characteristics (for example petroleum, mineral and vegetable oils, greases, ...).
- Excellent adhesion on mineral building materials such as concrete, cement and brick.
- The reaction speed can be adjusted from a few seconds to several minutes.
- Contains no toxic solvents and is considered as non-flammable.
- **PC[®] 509 Z L Acryl** has a high water retention capacity by which cracking of the gel, due to the dry-out of injected cracks under the influence of temperature and ground water level fluctuations, is impossible.
- Excellent swelling properties of the dry-out gel => water sealing season after season and year after year.

4. Technical Data

- Component A₁ (resin) :
 - Appearance: purple-pink liquid
 - Viscosity (20 °C): 48 mPas
 - Density: 1.12 g/ml
 - pH: 6.5 – 8
 - % active parts: 42 % - 48 %
 - Completely compatible with water
- Component A₂ (catalyst):
 - Appearance: clear yellow liquid
 - Viscosity (20 °C): 22 mPas
 - Density: 1.11 g/ml
 - Completely compatible with water

- Component B (initiator): white, water delutable powder
- Minimum application temperature: 5 °C
- Elongation at break: > 50 %
- Watertightness under pressure (EN 14068): waterproof at 2×10^5 Pa
- Compatibility with concrete (EN 12637-1): pass (compatible with concrete).
- Sensitive for wet-dry cycles (EN 14498 B): no change in swelling capacity after 10 wet-dry cycles.
- Swelling capacity under water (EN 14498 A): the swelling capacity reaches a constant level after 20 days.
- Increase of volume by conservation under water (EN 14498): 290 % after 20 days immersion in water at 21 °C.
- Shelf life: 6 months after production date in the original, unopened and undamaged packaging. **PC® 509 Z Acryl** has to be stored in a dry and dark place between + 5 °C and + 25 °C. If **PC® 509 Z Acryl** is stored at temperatures higher than 25 °C, the shelf life of **PC® 509 Z Acryl** can not be guaranteed.

5. Processing

The **PC® 509 Z L Acryl** system consists of 4 components:

- A₁: PC® 509 Z L Acryl (the acrylic resin)
- A₂: PC® 509 Cat (the catalyst)
- B: PC® 509 Init (60 gr.) (the initiator)
- C: Water

2 solutions are being made for the application

Solution 1:

A mixture of 25 kg (=22,32 l = 1 full bin) of the acrylic resin **PC® 509 Z L Acryl** with 1,25 kg (= 1,13 l = 1 full bin) catalyst PC® 509 Cat.

Solution 2:

A mixture of 23,45 l water with 60 g initiator (=1 buckets) PC® 509 Init (60 gr.).

Reaction time :

When you respect the above mentioned quantities, the reaction time at 20°C will be 10 minutes. When you add with the mixture of water, 30g of initiator (1/2 bucket), the reaction time at 20°C will be about 20 minutes. The reaction time decreases if the temperature is higher, the reaction time increases when the temperature is lower.

In order to obtain an acrylic gel, the 2 solutions must be mixed in a volumetric proportion of 1:1. **PC® 509 Z L Acryl** is injected into the crack with a 2 component (manual, electric or pneumatic) pump. The machine parts that come into contact with the resin must be in stainless steel.

If you want to re-inject the injection hoses, you have to rinse under low pressure the injection hoses within the reaction time of **PC® 509 Z L acryl**.





6. Packaging


PC [®] 509 Z L Acryl:	25 kg
PC [®] 509 Cat:	1,25 kg
PC [®] 509 Init (60 gr.):	60 g

7. Cleaning

Clean the equipment with water.

8. Precautions and safety requirements

- Protect the product against the UV light, sun light and store between 5°C and 25°C.
- Don't use water that contains a lot of minerals for the preparation of solution 2. These minerals can accelerate the reaction time.
- **PC[®] 509 Z L Acryl** can be irritating: wear safety glasses and gloves.
- In case of contact with the skin: wash with lots of water and soap. Rinse well afterwards.
- In case of contact with the eyes: rinse the eyes during a few minutes with clean water. Consult a doctor.
- Clean the equipment with water and a little detergent
- Absorb spilled resin with sand or sawdust and dispose according the local regulations.

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EN 1504-5 U(S1)W(1)(1/2/3/4)(5/30) Concrete injection product for swelling fitted filling of cracks	
Watertightness	$\geq 2 \times 10^5$ Pa
Workability – Viscosity	≤ 60 mPa.s
Corrosion behavior	Deemed to have no corrosive effect
Expansion ratio and evolution by water storage	Volume change: 290 %
Durability – sensitivity to water	The expansion reaches a constant level
Durability – sensitivity to wet-drying cycles	No modification of the expansion ratio
Durability – compatibility with concrete	Pass
Dangerous substances	comply with 5.4