

4-component, elastic, acrylic injection resin with linear transformation of viscosity. Designed for the (re-)injection of injection hoses and membrane injections.



APPLICATIONS

- Injection or re-injection of injection hoses.
- Membrane injections.

PROPERTIES

- Reacts into an elastic, durable gel.
- Good general chemical resistance.
- Does not contain acrylamide, methacrylamide, formaldehyde or solvents.
- Non-flammable.
- 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. High water retention capacity: when the injected cracks dry out due to temperature or ground water level fluctuations the gel will not crack easily.
- The cured gel has excellent durability in wet-dry cycles.

PACKAGING

RESIN	CATALYST	INITIATOR
25 kg	2.5 kg	0.060 kg

MIXING RATIO

	SOLUTION 1	SOLUTION 2
1:1 by volume	PC® 509 ZL Acryl Resin with PC® 509 Acryl Catalyst	PC® 509 Acryl Initiator with water

TECHNICAL DATA (Typical values)

	RESIN	CATALYST	INITIATOR
Colour	Purple-pink liquid	Clear yellow liquid	White powder
Viscosity (20 °C)	48 mPas	7 mPas	
Density (20 °C)	1.12 g/cm ³	1.04 g/cm ³	
PH	6.5 - 8		
% Active parts	42 % - 48 %		
Compatible with water	Yes	Yes	Soluble

Minimum application temperature		5°C
Elongation at break		> 50%
Watertightness under pressure	EN 14068	Waterproof at 2 x 10 ⁵ Pa
Compatibility with concrete	EN 12637-1	Pass (compatible)
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 of immersion in water at 21 °C



PROCESSING

1 PREPARATION

The PC® 509 ZL Acryl components are supplied ready to use. Create two mixtures in separate plastic buckets. Prepare only as much as will be used the same day.

Solution 1: PC® 509 ZL Acryl Resin mixed with PC® 509 Acryl Catalyst.

Solution 2: PC® 509 Acryl Initiator mixed with clean tap water.

Attention:

- The amount of water needs to be similar in volume to solution 1.
- When mixing the resin, always use a wooden or stainless steel spatula.
- The reaction time depends on the temperature of the material, the building structure and the possible amount of water present. Higher temperature will speed up the reaction time and lower temperature will slow it down.
- We advise to make an on-site trial, before injection, to observe and define the reaction time.
- To change the reaction time, only adapt the quantity of the PC® 509 Acryl Initiator. The quantity of the other components stays the same. Contact your TRADECC representative for longer reaction times.
- Use a two-component (manual, electric or pneumatic) stainless steel pump. Verify that pump and equipment are clean and that no residues from previous injection works are left.
- The two mixtures are inserted separately in the pump, but are mixed homogeneously in a volume ratio of 1:1 in the mixing head of the pump before being injected through the pump nozzle.
- Check the quality of the concrete, as injection implicates pressure.

REACTION TIMES AT 20 °C

SOLUTION 1				SOLUTION 2			Reaction time at 20 °C
Resin		Catalyst		Initiator	Water		
Kg	Liter	Kg	Liter	Kg	Kg	Liter	
25	22.32	2.50	2.40	0.060	24.72	24.72	10 min*
25	22.32	2.50	2.40	0.030	24.72	24.72	20 min

* Standard composition for injection of injection hoses. Sometimes faster reaction times are needed for certain injections. Please contact your local TRADECC contact to find out how much initiator has to be added in those particular cases.

2 INJECTION ACRYLIC RESIN

- Prepare the pump and set the reaction time of the resin.
- Place the injection nipple on the hose.
- Inject the hose with the resin until it comes out of the end of the other hose.
- Seal both ends and inject under pressure.
- If:
 - Preventive: Sealing without result and without the resin coming out of the wall.
 - Curative: The resin runs out of the crack / wall / joint.

To permit re-injection:

After injection, flush the hose with water to be able to inject again later.

💡 TRADECC's PC® 509 ZL Acryl has a **linear viscosity transformation**. This involves a gradual transformation of the liquid resin into a gel.

3 CLEANING

- Clean and flush the pump equipment with water every time there is a stop of more than 15 minutes. Or whenever necessary and at the end of the injection, flush with a sufficient amount of water.
- Make sure that the pump is well cleaned and only stop when clear water is coming out of the pump.

💡 TRADECC's injection hose, **PC® Injectra**, is made from expanded PE, which has a porous structure with cells that are mutually connected and form a zigzag passage. The cells open under pressure of the injected resin. The special water-repellent coating prevents the penetration of concrete milk coming from outside. PC® Injectra allows an optimal and uniform spread of the resin which will eventually be injected later on.



STORAGE

Storage:

In a dry place between + 5 °C and + 25 °C.


Shelf life:

6 months after production date in the original, unopened and undamaged packaging. If stored at temperatures higher than 25 °C the shelf life can not be guaranteed.

PRECAUTIONS AND SAFETY RECOMMENDATIONS

- Protect the products against UV and sunlight.
- Don't use water that contains a lot of minerals for the preparation of solution 2. The minerals can accelerate the gel reaction.
- Wear safety glasses, gloves and protective clothing. Avoid contact with skin and eyes.
- In the event of contact with eyes: rinse thoroughly with clear water and consult a doctor.
- Mix residues of PC® 509 ZL Acryl with sand or sawdust and dispose the mixture in accordance with local regulations.
- Consult the SDS sheet.

CE MARKING

 0749	
ECC N.V. Terbekehofdreef 50-52 B-2610 Wilrijk 09 0749 - CPD BC2-565-1895-0004-001	
EN 1504-5 U(S1) W(1) (1/2/3/4) (5/30) Concrete injection product for swelling fitted filling of cracks	
Watertightness	≥ 2 x 10 ⁵ Pa
Workability - Viscosity	≤ 60 mPa.s
Corrosion behaviour	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