

4-component, elastic, acrylic injection resin with low viscosity for the water sealing of cracks and voids.



APPLICATIONS

- Water sealing of cracks and voids in walls, floors, concrete constructions, underground structures, ...
- Can be used in constructions that are not permanently in contact with water (fluctuating ground water level).
- Injection of very fine cracks.

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.
- Suitable for absorbing shrinkage and expansion of injected cracks and voids caused by temperature fluctuations.
- 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.

STORAGE

Storage:

In a dry and dark 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 (hard water) 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 clean water and consult a doctor.
- Mix residues of PC® 509 Z Acryl with sand or sawdust and dispose of in accordance with local regulations.
- Consult the safety data sheet for more information.

MIXING RATIO

	SOLUTION 1	SOLUTION 2
1:1 by volume	PC® 509 Z 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)	19 mPas	7 mPas	
Density (20 °C)	1.15 g/cm ³	1.04 g/cm ³	
pH	6.5 - 8		
% Active parts	42 % - 48 %		
Compatible with water	Yes	Yes	Soluble
Packaging	25 kg	2.5 kg	2 x 0.625 kg

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
Increase of volume by conservation under water	EN 14498	150 % after 7 days of immersion in water at 21 °C.

*A wet-dry cycle consists of 1 day of drying at 50 °C, followed by 6 days of immersion in water at a temperature of 21 °C.

PROCESSING

The PC® 509 Z Acryl consists of 4 components:

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

2 Solutions are being made for the application.

- Solution 1: Is a mixture of the acrylic resin PC® 509 Z Acryl (component A1) with the catalyst PC® 509 Cat (component A2).
- Solution 2: Is a mixture of water with the initiator PC® 509 Init (component B).

In order to obtain the acrylic gel, these 2 solutions are being mixed in a volumetric ratio of 1:1.

Reaction times (20°C): To change the reaction time only adapt the quantity of the initiator and keep the quantity of the catalyst constant.

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	21.74	2.50	2.40	1.25	24.14	24.14	24 sec
25	21.74	2.50	2.40	1.00	24.14	24.14	31 sec
25	21.74	2.50	2.40	0.75	24.14	24.14	40 sec
25	21.74	2.50	2.40	0.625	24.14	24.14	44 sec**
25	21.74	2.50	2.40	0.50	24.14	24.14	56 sec
25	21.74	2.50	2.40	0.25	24.14	24.14	1 min 12 sec

* This is an approximate value as the volume of the initiator has not been taken into account.

** Standard composition.

- For longer reaction times, please contact your representative.
- Prepare only as much A and B component as will be used the same day.
- PC® 509 Z Acryl is injected into the crack with a two-component manual, electric or pneumatic pump. The machine parts that come into contact with the resin must be in stainless steel.

4 CLEANING

- After the material has cured, packers can be removed.
- The drilled holes can be covered up with the fast setting mortar PC® Cristal Patch'n Plug.
- 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.

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 filling of cracks	
Watertightness	≥ 2 x 10 ⁵ Pa
Workability - Viscosity	≤ 60 mPas
Corrosion behaviour	Deemed to have no corrosive effect
Expansion ratio and evolution by water storage	Volume change: 150 %
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

For additional documentation, safety data sheets, instruction videos, sample tests, sample test guidelines, etc. contact our sales department.