

AQUAFIN[®]-P4

ELASTIC POLYURETHANE INJECTION RESIN

Product Description:

AQUAFIN[®]-P4 is a solvent-free thin liquid, two-component polyurethane resin. AQUAFIN[®]-P4 is slow-reacting and hardens to a non-foaming, non-rigid, pore-free material which slightly foams when put into contact with water. AQUAFIN[®]-P4 bonds to a dry, moisture surface and offers excellent adhesion and tear resistance. AQUAFIN[®]-P4 has a low glass transition temperature and resists winter temperatures without causing embrittlement and widening of cracks due to low temperatures without tearing.

Areas of Application:

AQUAFIN[®]-P4 is used for the close, waterproofing and elastic connection of cracks, joints and cavities in construction made of concrete, natural stone or bricks. AQUAFIN[®]-P4 is suitable for waterproofing of car parks, concrete tanks, inner shells, and construction joints, furthermore, for the waterproofing injection using injection hoses, AQUAFIN[®]-CJ1 and AQUAFIN[®]-CJ2 in constructing joints. Due to its mixing ratio of 1:1 part by volume AQUAFIN[®]-P4 is perfectly suited for the injection with a two-component pump. AQUAFIN[®]-P4 can be injected via packers or embedded injection hoses AQUAFIN[®]-CJ1 and AQUAFIN[®]-CJ2. The evaluation report of the KTW for small-area waterproofing is available.

Technical Data:

Basis : polyurethane resin.
Mixing ratio : 1:1 parts by volume.

Density at 23°C	: Comp. A 0.975 ± 15g/ml. Comp. B 1.122 ± 15g/ml.
Mix viscosity	: at +8°C :450 ± 75 mPa.S. at +18°C:280 ± 60 mPa.S. at +23°C:190 ± 50 mPa.S.
Pot life	: at +8°C :50 – 60 minutes. at +18°C :40 – 50 minutes. at +23°C :25 – 35 minutes.
Application temperature	: between 6 - 40°C.
Gelling time/ Hardening time	: at +8°C :17.5 ± 2.0 hours. at +15°C :15.0 ± 1.5 hours. at +23°C :13.0 ± 1.0 hours.
Shore-A-Hardness	: 60-70
Tensile strength (acc. To DIN 53455)	: approx. 3 MPa.
Elongation (acc. To DIN 53455)	: 110-150%.

Cleaning:

Clean tools properly immediately after use and thoroughly with the cleaning agent ASO-R006. After work has finished or in case of longer interruptions the injection equipment is to be cleaned. The material must not dry out in the equipment and plug up vital machine components. The cleaning resp. the solvent agent should have a flashpoint exceeding +21C, we recommend the use of ASO-R006 (see technical data sheet).

The procedure is as follows:

- Pump off the remaining injection material out of the injection unit.
- Rinse the top container with ASO-R006.



- Clean the injection pump, the top container and the tubes for 5 to 10 minutes with ASO-R006 in circulation.
- Afterwards pump the cleaning mixture into a container and rinse against with ASO-R006.
- In case of longer resting times the pump, the top container and the tubes have to be filled with flushing oil ASO-R007.
- Before the injection unit is used again the oil has to be removed.

Packaging:

AQUAFIN®-P4 is supplied in packs of:

- 2.20 kg (1.00 kg A-component and 1.20 kg B-component).
- 10.5 kg (5.00 kg A-component and 5.50 kg B-component).
- 21 kg (10.00 kg A-component and 11.00 kg B-component).

*Component-A and B are supplied in the predetermined mixing ratio.

Storage:

24 months in unopened original packs, in a cool and dry place between +10°C and +30°C. Storage has to be affected in accordance with the regulations for the storage of water-hazardous substances.

Surface conditions:

The following criteria are to be fulfilled:

Cement-based surfaces

Quality of the concrete	: at least B 25.
Quality of the screed	: at least AE 30.
Quality of the plaster	: P III
Age	: at least 28 days
Tensile strength	: $\geq 1.5 \text{ N/mm}^2$

Product Preparation:

Component A (polyol) and component B (isocyanate) are already supplied in a predetermined mix ratio. Tip B-component into the A-component. Ensure that the hardener drains completely from its container. Mixing of components is to be carried out with a mixer at approx. 300 Rpm (for example drilling machine with a mixer attachment). It is important to also stir thoroughly from the sides and the bottom. Still until the mix is homogenous, the two components are mixed quickly.

Processing Tools:

Hand lever press, foot lever press, 1-component pump (airless or piston pump) or 2-component pump (working with the 2-component pump requires the use of the metal special mixer when correct product quality is to be guaranteed).

Method of Application/Consumption:

Generally, the mixed injection resin is injected via boreholes and packers into the cracks to be waterproofed until the material comes out of the control holes.

Example:

1. Existing cracks (cracks width approx. 0.2 mm) have to be bored at a distance of approx. 20 to 30 cm.
2. The boreholes have to be cleaned with oil-free pressure air from the dust.
3. Place injection packers.
4. If required pre-isolate the packers and the crack zone on the surface, for example with ASODUR-EK98. Strip width: approx. 1 cm, consumption approx. 300g/m².

5. After hardening the crack insulation, inject the thoroughly mixed AQUAFIN®-P4 with a suitable press. Vertical cracks: start the injection from the left side. Consumption: approx. 1.000 g/l.
6. If necessary, remove the injection packers after thorough hardening of AQUAFIN®-P4 and close the boreholes ASOCRET-RN.

Health and Safety:

One cured AQUAFIN®-P4 is physically harmless. The liquid component is harmful; Symbol Xn. In any case, the government health and safety protective directive, data sheet mM 044, should be observed as well as the advice on the packaging.

Important Advice:

Protect areas which are not to be treated against AQUAFIN®-P4. Applications which are not clearly explained in this data sheet may only be carried out with written confirmation from the technical service department.

Disposal: Liquid remainders: EAK 08 01 11 paints and lacquers containing organic solvents or other dangerous substances. Cured product remainders EAK 17 0 03 plastics. See valid European Materials Safety Data Sheet (MSDS).

GISCODE: RU40