



## Technical Data Sheet

### AQUAFIN®-P1

Art.-No. 2 05090

### Injection material for the waterproofing of water bearing cracks

#### Properties:

AQUAFIN-P1 is a highly reactive, single component modified isocyanate. AQUAFIN-P1 is ready for use. AQUAFIN-P1 expands on water contact with a rapid and extensive increase in volume and forms a solid viscoplastic foam, which forms a temporary waterproof barrier against further water penetration.

AQUAFIN-P1 is resistant to acids and alkalis and will not attack bitumen or waterproof tapes. On very dry substrates there is no immediate foaming expansion of the material but AQUAFIN-P1 hardens slowly through the ambient moisture already present in the air or from moisture in the concrete.

#### Areas of application:

AQUAFIN-P1 is used for injecting water-bearing cracks and joints in concrete and stonework.

AQUAFIN-P1 is used to:

- Stop water influx from cracks, joints and similar
- Consolidate loose stonework

AQUAFIN-P1 fulfills the requirements of the DiBt data sheet from Nov. 2000, "Assessment of the effects of construction products on concrete and ground water".

#### Technical Data:

Basis:	Water reactive one component polyurethane resin (with integral catalyst)
Colour:	brown
Viscosity at +5 °C:	approx. 2900 ± 300 mPa.s
Viscosity at +10 °C:	approx. 2100 ± 200 mPa.s
Viscosity at +15 °C:	approx. 1200 ± 100 mPa.s
Viscosity at +25 °C:	approx. 425 ± 75 mPa.s
Density:	approx. 1.150 ± 40 g/cm <sup>3</sup> at +25 °C
Minimum reaction temp:	> +5 °C
Recommended application temperature:	+15 °C to +30 °C
Reaction time *):	
Starts to foam:	
at +5 °C:	approx. 27 seconds
at +10 °C:	approx. 26 seconds
at +15 °C:	approx. 24 seconds
at +20 °C:	approx. 22 seconds
at +25 °C:	approx. 20 seconds

#### Stops foaming:

at +5 °C:	approx. 4 mins, 20 seconds
at +10 °C:	approx. 3 mins, 20 seconds
at +15 °C:	approx. 2 mins, 50 seconds
at +20 °C:	approx. 2 mins, 20 seconds
at +25 °C:	approx. 2 mins, 00 seconds

Note: The reaction times were determined by adding 10% water.

Foaming factor \*) at temperatures from +5 °C to +25 °C: 30 – 50

\*) When there is free foaming: the reaction times, quantity of foam and the properties of the foam are dependent on the quantity of water, the surface of the crack edge or stonework, their distribution within the AQUAFIN-P1 extrusion and other factors.

#### Cleaning tools:

Equipment and tools must be thoroughly cleaned after use. At the end of work or where there are lengthy interruptions in work, clean the injection equipment. Do not allow material residues to dry in the machinery and harden. Any cleaning agent or solvent must have a flash point above +21°C. Please follow the guidelines from the machine manufacturer.

#### Packaging:

1.1 and 5.5 kg  
AQUAFIN-P1 is ready to use with no need to mix.

#### Storage:

24 months when stored frost free in the original unopened container in cool and dry conditions between +10 °C and +30 °C. Ensure the product is stored in accordance with the by-law for storing materials hazardous to water courses.

---

# AQUAFIN®-P1

## Substrate preparation:

The following criteria must be fulfilled:

Cement-based surfaces

- Concrete quality: min. C20/25
- Screed quality: min. CT-C35-F5
- Render quality: P III
- Age: min. 28 days
- Tensile adhesion strength:  $\geq 1.5 \text{ N/mm}^2$

## Product preparation:

AQUAFIN-P1 reacts with the moisture in the air and with water. For this reason a skin may form with opened containers but this does not affect the injection.

AQUAFIN-P1 is usually injected through packers and either hand or motor driven pumps into the water-bearing area. On contact with water AQUAFIN-P1 foams extensively and hardens.

If there is too little water in the area to be waterproofed, then the reaction and hardening processes can be supported by either pre-injecting or post-injecting with water.

## Recommendation:

We recommend, prior to application, that the product is stored for at least 12 hours at a minimum temperature of +15 °C in order to ensure that the recommended application temperature of +15 °C to +30 °C is achieved.

## Method of application / consumption:

- Drill into the existing cracks (crack width approx. 0.2 mm) at approx. 20 cm intervals.
- Clean the boreholes of drilling dust using oil-free compressed air.
- Place the injection packers.
- Inject AQUAFIN-P1 with appropriate injection equipment.  
Consumption: approx. 1,150 g/l.
- Once the injection resin has cured, remove the injection packers, as necessary and close off the bore holes with ASOCRET-M30 and level off with the concrete surface.

For application with suitable injection equipment, we recommend contacting HTG HIGH TECH Germany GmbH in Berlin, [www.hightechspray.de](http://www.hightechspray.de).

## Health & Safety:

Once cured AQUAFIN-P1 is considered harmless. The liquid component is harmful. When using the product follow government health and safety guidelines, sheet M 044 as well as the advice on the packaging.

## Important advice:

- Protect areas which are not to be treated against the influences of AQUAFIN-P1.
- Applications which are not clearly explained in this data sheet may only be carried out after consultation with and written confirmation from the SCHOMBURG GmbH Technical Services Department.
- Disposal key:  
Liquid product residues: EAK 08 01 11 paint and lacquer waste, which contain organic solvents or other harmful substances. Cured product residues: EAK 17 02 03 plastics.

Please observe a valid EU Health & Safety data sheet.

GISCODE: RU40