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SCHOMBURG Building Product Systems

Technical Data Sheet

AQUAFIN®-P1

Art.-No. 2 05090

Injection resin for the waterproofing of water-bearing cracks

Properties:
AQUAFIN-P1 is a highly reactive, one component modified isocyanates.
AQUAFIN-P1 is ready to use without mixing.
AQUAFIN-P1 foams with water contact by high increase in volume and becomes a firm viscoelastic foam, which seals temporarily against further water penetration.
AQUAFIN-P1 is resistant against acids and alkalis and attacks neither bitumen nor joint tapes. In case of very dry surfaces the material does not foam immediately but it hardens slowly due to the steady addition of existing air resp. soil moisture.

Areas of application:
AQUAFIN-P1 is used for the injection of water-bearing cracks and joints in concrete and stone.

AQUAFIN-P1 is used for
- stoppage of water inflows from cracks, joints, etc.
- compacting of granular stones.

AQUAFIN-P1 meets the requirements of the DfBT-leaflet "Bewertung der Auswirkungen von Bauprodukten auf Beton und Grundwasser (evaluation of the effect of construction products on concrete and ground water)" dated November 2000.

Technical Data:

Basis:	waterreactive 1-comp. polyurethane resin (with integrated catalyst)
Colour:	brown
Viscosity at +5° C:	approx. 2900 ± 300mPa·S
Viscosity at +10° C:	approx.2100 ± 200mPa·S
Viscosity at +15° C:	approx.1200 ± 100mPa·S
Viscosity at +25° C:	approx.425 ± 75mPa·S
Density:	approx. 1.150 ± 40 g/cm³ at 25° C

Minimum reaction temperature:	> 5° C
Recommended processing temperature:	at least 15° upto 30° C
Reaction time *):	
Start of foaming:	
at +5° C:	approx. 27 sec.
at +10° C:	approx. 26 sec.
at +15° C:	approx. 24 sec.
at +20° C:	approx. 22 sec.
at +25° C:	approx. 20 sec.
End of foaming	
At +5° C:	approx. 4 min.20 sec.
At +10° C:	approx. 3 min.20 sec.
At +15° C:	approx. 2 min.50sec.
At +20° C:	approx. 2 min.20 sec.
At +25° C:	approx. 2 min.00 sec.

Note: the reaction times had been determined with addition of 10% water.

Foaming factor (*) at
temperatures of +5° C to +25° C: 30 - 50
*) in case of free foaming: The reaction times, foam quantitiy and foam properties depend on the water quantitiy, surface of the crack flanks resp. the stones, their distribution in the AQUAFIN-P1 pressure and other factors.

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

AQUAFIN®-P1

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 again with ASO-R006.
- In case of longer resting times the pump, the top container and the tubes have to be filled with the flushing oil ASO-R007.
- Before the injection unit is used again the oil has to be removed.

Packaging:
AQUAFIN-P1 is supplied in packs of 1.1 and 5.5 kg.
AQUAFIN-P1 is ready for use without mixing.

Product preparation:
AQUAFIN-P1 reacts with the air humidity and with water. Therefore a film may form on the surface of the liquid in opened packs which does not affect the injection procedure. Generally AQUAFIN-P1 is injected into the water bearing areas by means of injection nozzles and handresp.
Motor-driven pumps. In contact with water AQUAFIN-P1 foams up strongly and hardens.
If the zone to be waterproofed contains insufficient water, additional injection of water - preliminarily or subsequently - will support the reaction and hardening of AQUAFIN-P1. The application is to be effected in accordance with the ZTV-riss or RiLi of the DafStb (regulations for crack injection).
Recommendation:
We recommend to store the product prior to use for at least 12 hours at a minimum temperature of +15° C in order to ensure the recommended processing temperature of between +15° - +30° C.

Method of application / consumption:
1. Existing cracks (crack width approx. 0.2 mm) have to be bored in a distance of approx. 20 cm.
2. The boreholes have to be cleaned with oilfree pressure air from the dust.
3. Place the injection packers
4. Inject AQUAFIN-P1 with the suitable injection equipment. Vertical cracks: start the injection from the bottom. Horizontal cracks: start the injection from the left side. Consumption: approx. 1150 g/l
5. If necessary remove the injection packers after thorough hardening of AQUAFIN-P1 and close the boreholes with ASOCRET-RN, if necessary, level them upto the concrete surface.

Health and safety:
Once cured ASODUR-P1 is physiologically harmless.
The liquid component is harmful; Symbol Xn.
In any case the government health and safety protective directive,,data sheet M 044, should be observed 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 with and 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 02 03 plastics.

See valid EC-safety data sheet.

GISCODE: RU40