Safety data sheet

IPAPUR VM 1 K

Status: 05.01.2024   Version: 1

Single-component, low-viscosity polyurethane foam injection resin in 2 settings: normal fast foaming injection resin for sealing cracks and cavities with water ingress

Material description:

Highly reactive modified one-component polyisocyanate prepolymer that cures to a solid, elastic polyurethane foam when water is added. IPAPUR VM 1K is a solvent-free, brown liquid.

Areas of application:

IPAPUR VM 1K is used as an injection and grouting material, especially for sealing water-bearing cracks in building construction and civil engineering, e.g. water ingress, in civil engineering, for displacing water in water-bearing cracks and cavities. For permanent sealing, post-grouting with IPAPUR or IPANOL IH is required.

Properties:

IPAPUR VM 1K as a 1-component product has the following advantages over conventional 2-component waterproofing resins: 1. due to the extended curing time, the material flows slowly into cavities and therefore has an optimum water-displacing effect. 2. contact with moisture from the environment leads to subsequent curing. The reaction takes place very quickly even at temperatures around 0° C. The semi-rigid foam adheres firmly to the substrate and is still flexible at temperatures of -20°C. The cured IPAPUR VM 1K is resistant to acids and alkalis and does not attack bitumen, joint tapes or concrete.

Processing instructions:

IPAPUR VM 1K is ready to use. The contents of the container must be protected from moisture.

Sealing of cracks/defects under water pressure and water ingress:

- Determine and mark the course of the crack. Drill alternate sides of the crack using 12 mm drill holes, at an angle to the crack (approx. 45°), at intervals of 15-20 cm (depending on the crack width), the drill hole should penetrate the crack in the middle of the wall.

- Tamp cracks over 0.5 mm wide. This is done with IPA Unimörtel Rapid or IPANEX Stopfmörtel,

- Mounting and tensioning the 12 mm screw packers.

- After the insulation has hardened, screw the non-return nipple onto the lowest valve and start pressing.

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- First, the water-reactive, foaming Pu resin IPAPUR VM 1k is injected using an IPA high-pressure injection device.

- After foaming, post-injection with an IPAPUR IF must be carried out within 45 minutes through the same valves or packers in order to close the open pore structure of the PU foam.

- After curing, remove the packer if necessary and close any remaining drill holes with IPA Unimörtel Rapid.

Please note:

Although the material has a sufficiently long processing time after mixing, a firm skin can form on the surface due to the influence of air humidity. Once this layer has been penetrated, however, the mixture can be processed without any reduction in quality. Tools and equipment are cleaned with IPA Active Cleaner or IPA Ecocleaner.

Safety advice:

The protective measures prescribed by the chemical trade association must be observed. Work with gloves and protective goggles. Avoid skin contact with the product. For better protection of the hands, apply a skin protection cream. If material splashes on the skin or in the eye, rinse immediately with plenty of water and then consult a doctor immediately. Please observe the hazard warnings and safety advice on the safety data sheets and product labels. GISCODE: PU40

Technical data:

Viscosity at 23°C mPas	300
Density at 20°C g/cm^3	1,2
Flash point °C	>200
Volume increase*	10-20x
Storage	3 months in unopened original container, dry at +5°C - 30°C
Delivery form	10 liter canister

* The values apply to room temperature after good mixing with approx. 5 % water, with free expansion of the material. Foam quantity and properties are somewhat dependent on the amount of water and its distribution in IPAPUR VM 1K

Setting:

	Setting	
	fast	normal
Start time s	6	Approx. 30
Climbing time min	2	Approx. 4
Setting time (tack-free) min	5	Approx. 10