

## Technical Manual

### One-component foaming injection resin

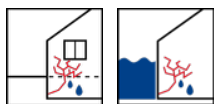
WaterStopper is a one-component resin with low viscosity used for sealing cracks, large fissures, or water leaks at high pressure or flow.

#### Properties

- ❖ The product requires contact with water to start the reaction.
- ❖ The product requires the addition of an initiator to properly carry out the reaction.
- ❖ Excellent adhesion to concrete and metal.
- ❖ Expands up to 22 times in volume.
- ❖ Penetrates deeply into small cracks.
- ❖ Forms a semi-rigid foam.



#### Areas of application



- ❖ Used for sealing cracks and large fissures in walls, floors, concrete structures, and underground structures.
- ❖ Limits the flow of water to leaks or active leaks at high hydrostatic pressure.
- ❖ Possibility of adjusting the reaction time by adding the appropriate amount of initiator.

#### Products specifications

Initiator (per 1kg / 1000ml of resin)	Start of reaction	End of reaction
71 g / 56,8 ml	6 s	48 s
57,6 g / 46 ml	13 s	1 min 8 s
28,9 g / 23,1 ml	18 s	2 min 51 s

- ❖ The presented values were obtained as a result of a test carried out with 18% water addition.

	Resin	Initiator	Mixture
Color	Dark brown	Transparent	Dark brown
Viscosity (20 °C)	100 ± 10 mPas	60 ± 5 mPas	
Density (20 °C)	~ 1,18 g/cm <sup>3</sup>	~ 1,24 g/cm <sup>3</sup>	

## Optional additional products

- ❖ ResinBau CrackOn.5 - crack closure mortar
- ❖ ResinBau CrackFlex - two-stage injection
- ❖ Hamm-pack® PI-Cleaner - for cleaning injection aids
- ❖ Hamm-pack® injection packers

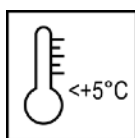
## Preparatory work

- ❖ This product is intended for professional use only.
- ❖ Before starting the injection, the condition of the object should be analyzed.
- ❖ The substrate must be stable and compact, and cannot contain loose elements or substances that reduce adhesion, such as fats, oils, etc.
- ❖ Make sure to drill holes correctly, depending on the work being performed.
- ❖ For cracks or loose joint fragments, it is recommended to undercut/cut and clean them of construction dust so that they can be superficially closed with spackle (ResinBau CrackOn.5).
- ❖ The holes should be blown out with compressed air or water.
- ❖ Injection packers should be installed.

## Resin preparation

- ❖ The components are supplied ready for use.  
The reaction time depends on the material temperature, the structure of the structure, and the amount of added water. Higher temperatures accelerate the reaction time, while lower temperatures slow it down. Remember! Water, moisture, and high temperature significantly accelerate the reaction time.
- ❖ Add the initiator to the resin according to the desired reaction time and mix thoroughly.
- ❖ Apply using a single-component pump.

## Instructions for use



- ❖ The temperature of the material, surroundings, and substrate should be above 5°C.
- ❖ Prepare the application pump according to the manufacturer's recommendations.
- ❖ The pressure at which the resin will be supplied depends on the structure and size of the crack.
- ❖ Start the application at the lowest point of the crack,
- ❖ Continue the application until the resin leaks out of the adjacent packer.
- ❖ This procedure is necessary to achieve a uniform distribution of the material.
- ❖ Stop pumping, disconnect the hose from the packer fitting, and move on to the next one.
- ❖ Continue the procedure until the crack is completely filled.
- ❖ Working time is 30 minutes at 20°C.

## Cleaning after work

- ❖ Clean the pump and equipment using Hammpack® PI-CLEANER every time work stops for more than 15 minutes and after the application is completed.
- ❖ During cleaning, pay attention to maintaining appropriate safety conditions.
- ❖ If the cleaning agent comes out of the injection hose, rinse it with an appropriate amount of Hammpack® PI-SAVER preservative.

## Storage Shelf life

- ❖ Store in a dry place at 10°C - 30°C.
- ❖ Shelf life is 12 months from the date of production in the original, unopened packaging. After opening, the product's lifespan decreases rapidly.

## Safety

- ❖ Store in a dry place at 10°C - 30°C. Wear protective glasses, gloves, and clothing. Avoid contact with skin and eyes.
- ❖ If in contact with eyes: rinse thoroughly with clean water and consult a doctor.
- ❖ If in contact with skin: rinse thoroughly with water.
- ❖ Component B may react with water or atmospheric moisture, creating gaseous CO<sub>2</sub>. This can create pressure in a closed or already opened container.
- ❖ Mix the remaining WaterStopper with sand and dispose of the mixed material in accordance with local regulations.

**EN: Danger** - H315 - Irritates the skin; H317 - May cause an allergic skin reaction; H319 - Irritates the eyes; H332 - Harmful if inhaled; H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled; H335 - May cause respiratory irritation; H351 - Suspected of causing cancer; H373 - May cause damage to organs through prolonged or repeated exposure. - P201 - Obtain special instructions before use; P202 - Do not use before reading and understanding all safety precautions; P260 - Do not breathe dust, smoke, gas, mist, spray or vapour; P264 - Wash hands, forearms and face thoroughly after use; P271 - Use only outdoors or in a well-ventilated area; P272 - Do not remove contaminated work clothes from the workplace; P280 - Wear safety glasses, face protection, protective clothing, gloves; P284 - Wear respiratory protection; P302+P352 - IF ON SKIN CONTACT: Wash with plenty of soap and water; P304+P340 - IF INHALED: Remove person to fresh air and ensure breathing; P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if accessible and easy to remove. Rinse continuously; P308+P313 - IF exposed or contacted: Seek medical advice/attention; P312 - If you feel unwell, contact a POISON CENTER or doctor; P321 - Specific treatment (see additional first aid instructions on this label); P332+P313 - If skin irritation occurs: Seek medical advice/attention; P333+P313 - If skin irritation or rash occurs: Seek medical advice/attention; P337+P313 - If eye irritation persists: Seek medical advice/attention; P342+P311 - If respiratory symptoms occur: Contact a POISON CENTER or doctor; P362+P364 - Remove contaminated clothing and wash before reuse; P403+P233 - Store in a well-ventilated area. P405 - Keep container tightly closed; P501 - Dispose of contents/container at hazardous or special waste collection point in accordance with local, regional, national and/or international regulations. - Contains: diphenylmethane-4,4' diisocyanate; Diphenylmethane diisocyanate, isomers and homologues.