

Foamjet T

High viscosity ultra rapid setting and self-extinguishing, two-component polyurethane resin to be injected for the consolidating and waterproofing of structures subject to strong water ingress



WHERE TO USE

- Waterproofing rock or loose ground diggings, dams, shafts or tunnels where there is strong water ingress.
- Waterproofing bulkheads even when subject to constant water pressure.

Some application examples

- Waterproofing tunnels subject to high pressure water ingress through possible cracks or in fissures between keystones.
- Waterproofing shafts or hydraulic structures that have high pressure water ingress through working joints or cracks.
- Repairing cracks in dams, channels and bulkheads when permanently immersed in water.
- Sealing cracks in floorings or slabs that are damp or saturated with water.

TECHNICAL CHARACTERISTICS

Foamjet T is a two-component polyurethane, halogene free resin, self-extinguishing, having very high reactivity and excellent mechanical performances and chemical stability.

After having mixed the two components together

in the ratio 1:1 by volume, with a special pump equipped by static helicoidal mixer, **Foamjet T** forms a polyurethane foam of great strength.

Thanks to its high fluidity, **Foamjet T** can also penetrate through cracks of only some one hundred microns wide and seal the cracks even if they are subject to water infiltrations.

At the end of the setting time, within a few seconds, depending on the temperature, **Foamjet T** becomes completely waterproof and ensures an adequate consolidation to the treated structure.

Foaming/hardening reaction takes a very few seconds but, either upon peculiar requirements or in presence of low application temperatures (lower than +15°C), it is possible to fasten by adding, into the **Foamjet T** part A, a small quantity (0.5-1% on weight) of a proper catalyst **Foamjet T ASK**.

RECOMMENDATIONS

Foamjet T is particularly recommended for waterproofing large areas where there is water ingress, also under pressure.

Both part A and part B must be accurately mixed before using, in order to obtain a homogeneous and ready to use product. **Foamjet T** part A

might be affected by a significant viscosity increase, when stored at low temperature.

Temperature influences the hardening time of **Foamjet T**; temperatures lower than +15°C lengthen setting time. It is therefore recommended to seek information from our technical service before injection takes place in structures that are subject to high pressure water ingress.

DIRECTIONS FOR USE

Sealing cracks by injection

Positioning the injectors

Make off-set holes on the sides of the cracks. The size of the holes should fit the diameter of the injectors that will be used.

Expansion injectors with a non-return valve can be easily fixed by self-tapping completely to the walls of the hole.

If there is no water ingress, normal copper, steel or PVC tubes with a diameter of approximately 10 mm can be used and can be fixed with **Adesilex PG1**.

Preparing the product and injecting

The two components that make up **Foamjet T** must be mixed together by a special pump for two-component resins.

In order to carry out injection, **Foamjet T** part A and **Foamjet T** part B in the ratio 1:1 by volume, must be separately conveyed through the pump and into the nozzle previously placed on the injector and mixed by a worm screw placed within the nozzle.

After mixing, **Foamjet T** must be injected continuously through the crack. When the two components are mixed, the viscosity of the mixture increases substantially, therefore the injected mixture will not separate or be washed out by the pressure of water. The increase in volume of the foam and its fast reaction stops the water ingress within a few minutes.

In the absence of water, **Foamjet T** hardens without increasing in volume and rapidly seals the crack.

Cleaning

Clean injection equipment (pump and

tubes) with mineral oil, free of water and impurities after use.

COVERAGE

- In the absence of water: approximately 1.1 kg of mixture (part A + part B).
- In the presence of water: approximately 0.3 kg of mixture (part A + part B).

PACKAGING

- 44 kg units:
- part A = 20 kg;
 - part B = 24 kg.

STORAGE

Store in covered and dry place in original sealed containers and at temperatures between +5°C and +30°C.

SAFETY INSTRUCTIONS FOR PREPARATION AND INSTALLATION

Foamjet T part B is harmful by inhalation. Irritating to eyes, respiratory system and skin. May cause sensitization by inhalation and skin contact. Do not breathe vapour/spray. Wear suitable protective clothing and gloves. In case of accident or if you feel unwell, seek medical advice immediately (show the label or the technical data sheet where possible).

For further and complete information about a safety use of our product please refer to our latest version of the Material Safety Data Sheet.

FOR PROFESSIONAL USERS.

WARNING

Although the technical details and recommendations contained in this product report correspond to the best of our knowledge and experience, all the above information must, in every case, be taken as merely indicative and subject to confirmation after long-term practical applications: for this reason, anyone who intends to use the product must ensure beforehand that it is suitable for the envisaged application: in every case, the user alone is fully responsible for any consequences deriving from the use of the product.

Please refer to the current version of the Technical Data Sheet, available from our web site www.mapei.com

All relevant references for the product are available upon request and from www.mapei.com

TECHNICAL DATA (typical values)

PRODUCT IDENTIFICATION (at +20°C and 60% R.H.)

	part A	part B
Colour:	light yellow	dark brown
Appearance:	liquid	liquid
Density (g/cm³):	1.010 ± 0.02	1.220 ± 0.03
Viscosity (mPa·s):	400 ± 30	250 ± 50
Storage:	1 year in original sealed packaging. Protect from humidity and store in temperatures between +5°C and +30°C	
Hazard classification according to EC 1999/45:	none	harmful Before using refer to the "Safety instructions for preparation and application" paragraph and the information on the packaging and Safety Data Sheet
Customs class:	3909 50 90	

APPLICATION DATA

Mixture characteristics:	part A : part B = 1 : 1 (by volume)			
Temperature (°C):	15	25	15	25
% water (g):	10	10	100	100
Reaction start:	30-35"	20-25"	1'10"-1'25"	1'00"-1'15"
Reaction end:	3'00"-3'30"	2'30"-3'00"	8'00"-8'30"	7'30"-8'00"
Foaming ratio:	3-10	3-10	3-10	3-10
Hardness shore D (EN ISO 868):	85 ± 5	85 ± 5	85 ± 5	85 ± 5

N.B. After mixing of the two components for 15 seconds (50 g each), they have been afterwards mixed with water 810 and 100 g, for 15" more, by adding 1% on weight of catalyst **Foamjet TAKS**.

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(GB) A.G. BETA