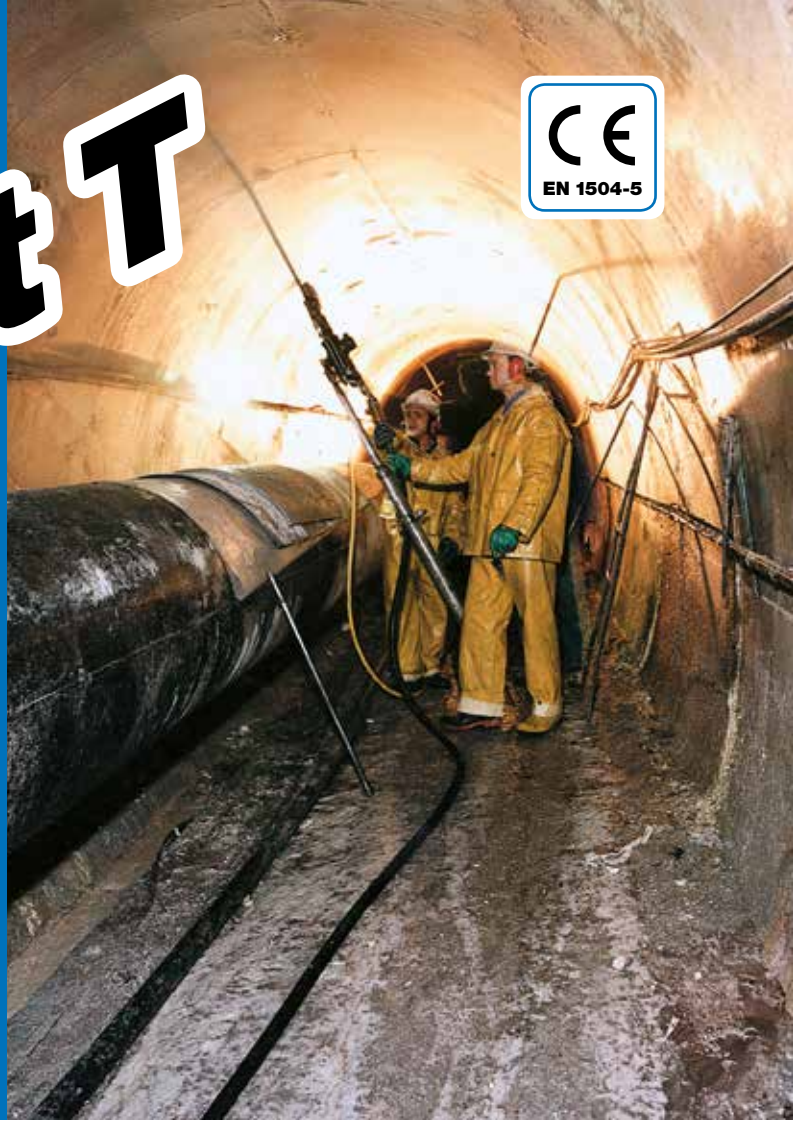
MAPEI

Foamjet T

CE
EN 1504-5



Ultra rapid setting and two-component polyurethane resin to be injected for 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 diaphragm and pile walls even when subject to constant contact with water.

Some application examples

- Waterproofing tunnels subject to high pressure water ingress through possible cracks or in fissures between keystones.
- Waterproofing shafts or hydraulic structures with 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, having very high reactivity and excellent mechanical performance 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.

Due to its rheological properties, **Foamjet T** can also penetrate through small cracks and sealing them 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 reduce reaction time by adding, into the **Foamjet T** part A, a small quantity (0.5-2.5% by weight) of a proper catalyst **Foamjet AKS**.

Foamjet T meets the requirements defined by EN 1504-9 *("Products and systems for the protection and repair of concrete structures. Definitions, requirements, quality control and evaluation of conformity. General principles for the use of products"*) and the minimum requirements claimed by EN 1504-5: U(S1)W(3)(1/2/3/4)(5/35) ("*concrete injection*").

Foamjet T

TECHNICAL DATA (typical values)		
PRODUCT IDENTITY (+23°C and 50% R.H.)		
	component A	**component B**
Colour:	light yellow	dark brown
Consistency:	liquid	liquid
Density EN ISO 2811-1 (g/ml):	1,034 ± 0,026	1,22 ± 0,04
Viscosity (mPa·s) EN ISO 3219:	471 ± 94	322 ± 64
APPLICATION DATA		
Mixture characteristics:	component A : component B = 1 : 1 (by volume)	
Temperature (°C):	25	25
% Water (g):	10	no water
Reaction start:	10”	1’
Reaction end:	3’00-3’30”	15’
Foaming ratio:	3-10	does not expand

RECOMMENDATIONS

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

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.

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 helicoidal mixer 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 water pressure. 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.

NOTE: *components A and B must be mixed thoroughly before use in order to blend in any additives that may have settled. Component A may become more viscous if stored at low temperatures.*

Cleaning
Clean injection equipment (pump and tubes) with mineral oil, free of water and impurities after use.

CONSUMPTION
The consumption of the product depends on the size of the void volume to be filled and the foam expansion factor after mixing the two components, in relation to the amount of water present.

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

STORAGE
Foamjet T can be stored for 1 year in covered and dry place in original sealed containers and at temperatures between +5°C and +30°C.

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION
Instructions for the safe use of our products can be found on the latest version of the Safety Data Sheet, available from our website www.mapei.com.

PRODUCT FOR PROFESSIONAL USE.

WARNING
Although the technical details and recommendations contained in this product data sheet 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 application; 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 website www.mapei.com

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

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