

## ECMAGROUT PU M 600

### POLYURETHANE INJECTION RESIN TO STOP WATER LEAKS AND PERMANENT ELASTIC SEALING OF CRACKS BY ONE PRODUCT

#### Description

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ECMAGROUT PU M 600 is a two component, solvent and phthalate free, low viscosity, polyurethane injection system for the elastic sealing of cracks in concrete structures with a dual performance:

- a. In case water is present, it will form an elastic foam
- b. In case there is no water or the water has been reacted away, the material will form a flexible resin with the performance of a permanent sealing

To stop water leakage ECMAGROUT PU M 600 could be used as a premix and injected as a single component and a flexible foam will be formed. To create a permanent elastic seal, the structure can be re-injected with ECMAGROUT PU M 600 using the same material and the same pump and the same packer.

#### Advantages

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- Dual function in one material - stopping water leaks & permanent sealing of cracks.
- Can be pumped as one component premix or as two components.
- Suitable for use in hot and cold climates.
- Forms a flexible foam in contact with water.
- Forms an elastic seal in absence of water.
- Good adhesion to substrate.
- Can withstand high hydrostatic pressures.
- Non-toxic, suitable for use in contact with potable water

#### Uses

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- ECMAGROUT PU M 600 is suitable to temporarily seal leaks in concrete structures and with a second injection of ECMAGROUT PU M 600 to permanently seal cracks and voids.
- For injecting into leaking cracks in concrete or masonry.
- Liquid retaining structures.
- Sewage treatment plants.
- Substructure concrete construction.
- Leaking construction joints

#### Installation Guidelines

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ECMAGROUT PU M 600 should be applied by experienced grouting crews. ECMAS provides detailed method statements on all its products for use in various applications. These must be referred to prior to starting work. The information below is a summary intended for guidance only.

ECMAGROUT PU M 600 is normally carried out through packers installed in holes drilled into the concrete. The holes should be at 45 degree to the concrete surface and intersect the crack at the mid-point of the estimated crack depth. On wide cracks or where a large flow of water is present, use instant plugging mortar ECMAREP 504 to control or direct water flows. Detailed information and guidance on pump and packer selection for specific requirements are available from ECMAS.

## Mixing

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Pour the base (Part A) into a clean, DRY plastic bucket and add the hardener (Part B) in ratio 1:1 and thoroughly mix manually, or with a slow speed (200 rpm or less) drill fitted with a stirrer. Mixing should continue until the liquid is homogenous without streaks.

## Injection process

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Polyurethanes are water sensitive. To avoid pump & hose blockages they should be flushed with ECMACLEAN prior to using polyurethane resins. ECMAGROUT PU M 600 should be injected using standard injection equipment having covered reservoirs. Inject packers sequentially. On vertical surfaces start injection at the lowest packer and continue to the next packer etc.).

## Re-injection

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Due to the long pot life of ECMAGROUT PU M 600 (35 to 45 minutes at 25°C), when not in contact with water or when the water is reacted away by the first injection, it can also be used to permanently seal cracks using the same packers and using the same pump. It is recommended that re-injection takes place within 30 minutes at 25°C of the material in the packers being mixed. At higher temperatures, this time will be reduced.

## Cleaning

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Injection pumps should be flushed and tools cleaned immediately after use, before the resin sets. Use the ECMACLEAN name to be sure the part will be clean. Once the resin has set, it can only be removed by mechanical means.

## Precautions

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ECMAGROUT PU M 600 when in contact with water is for the temporary sealing or reduction of water flows to allow the injection of a permanent seal using a second injection of ECMAGROUT PU M 600 with the same packer and machine. Avoid skin contact. Do not discard unmixed or partially mixed material into the water system. If any doubts arise concerning temperature, application or substrate conditions, consult the local ECMAS office.

## Shelf Life & Storage

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6 months when stored 5°C and 25°C and less than 50% relative humidity if kept in a dry store in the original, unopened containers. Once a pack has been opened use immediately. Purging a part pack with nitrogen is essential.



# ECMAGROUT PU M 600

## Technical Specifications

Mix Ratios by volume	1 :1
Pot life without water at 25°C	35 - 45 minutes
Gel time without water at 25°C	60 - 80 minutes
Cream time in contact with water at 25°C	80 - 120 seconds
Gel time (with water) at 25°C	250 - 350 seconds
Free foam expansion	1500% min.
Viscosity M 600 A (mPa.s) at 25°C	80 to 120
Viscosity of Mix (mPa.s) at 25°C	160 to 220
Volatile Organic Content	<50g/L
Intended Use	Permanent Sealing of cracks & leakages
Allowed min crack width	0.1 mm
Moisture state of the crack	Dry, damp & wet cracks
Min and max use temperature	5°C to 40°C
Elongation Capacity %	15 - 25
Glass transition temperature	-5°C
Corrosion behavior	No corrosive effect
Packaging	10 kg packs (Part A- 5 Kg, Part B- 5 Kg)

## Health and Safety

This product is for industrial use only by trained operatives. It is potentially hazardous if not used correctly. Please refer to the Material Safety Data Sheet (MSDS) prior to the purchase and use of this product.

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