

## ECMAGROUT PU F 240

### TWO COMPONENT, RAPID SETTING, POLYURETHANE INJECTION TO STOP WATER LEAKAGE & WATER TIGHT SEALING OF CRACKS

#### Description

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ECMAGROUT PU F 240 is a two component, solvent and phthalate free, low viscosity, polyurethane injection system for to stop heavy water leakage and sealing of cracks in concrete structures.

To stop water leakage, when ECMAGROUT PU F 240 is injected in leak, a quick setting rigid foam will be formed initially to quickly react away the water. Once water leak is stopped, injecting it further will displace the mix already present, and it will harden to form a non-porous material without any further foaming and it will create a water tight seal. ECMAGROUT PU F 240 has good adhesion concrete and masonry.

#### Advantages

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- Low viscosity, allows deeper penetration in fine cracks and voids
- No shrinkage, ensures complete surface contact and bond to dry or moist substrates.
- TDI, Phthalate and Solvent free
- Cured material is non-toxic, impermeable to water, can withstand high hydrostatic pressures.
- High Mechanical properties for sealing of cracks in structural members.
- Suitable for hot and cold climates

#### Uses

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- Fast reacting, quick foaming injection for stopping high volume & pressure water leaks
- Sealing and stabilizing of cracks & cavities in concrete, loose rock, mountain rocks or similar conditions.
- Sealing of sheet pilings, Diaphragm walls, Beams, slabs & columns, etc.
- Sealing joints in precast elements, concrete columns, etc.

#### Installation Guidelines

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ECMAGROUT PU F 240 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 F 240 is normally injected through packers installed in holes drilled into the concrete. The holes should be at 45 degree to the concrete surface and intercept the crack at the mid-point of the estimated crack depth. On wide cracks, ECMAREP 502 should be used to stop injection material coming out of the crack. Prior to injecting, the cracks could be flushed with clean water to remove salt etc. from the crack. Detailed information and guidance on pump and packer selection for specific requirements are available from ECMAS.



## Injection process

Polyurethanes are water sensitive so needs to be used carefully. It is recommended to store the products before processing at working temperature for at least 12 hours. ECMAGROUT PU F 240 should be injected using a standard 2 component (1:1 by volume) injection equipment fitted with a static mixer & flushing pump and having adequate pressure and delivery rate. To avoid pump and hose blockages they should be flushed with suitable cleaning agent like the ECMACLEAN prior to using polyurethane materials. When ECMAGROUT PU F 240 comes into contact with water, it will foam to stop leaking water. Inject packers sequentially. On vertical surfaces start injection at the lowest packer and continue to the next packer etc.

Inject ECMAGROUT PU F 240 further and the ensuing reaction mix will displace the mix already present, and it will harden to form a non-porous material without any further foaming. Thereby producing a watertight seal.

## Technical Specifications

Mixing Ratio	1:1 (by volume) 1:1.18 (by weight)
Viscosity (mPa.s) at 25°C	100-120
Cream Time at 25°C	15-25 Second
Gel Time at 25°C	60-80 Seconds
Tensile strength N/mm <sup>2</sup>	40-45
Compressive Strength N/mm <sup>2</sup>	>60
Elongation at Break %	4-6
Shore Hardness (D)	70 – 75
Intended Use	Quick Leakage Arrest & Sealing of cracks
Allowed min thickness of crack (mm)	0.1
Moisture state of the crack	Dry, damp & wet cracks
Min and max use temperature	5°C to 50°C
Adhesion by Tensile Bond Strength (MPa)	>3
Adhesion by Slant Shear Strength	Monolithic failure
Non-volatile matter %	>95
Glass Transition Temperature	- 5°C
Corrosion Behavior	Deemed to have no corrosive effect
Packaging	11 kg packs (Part A - 5 Kg, Part B - 6 Kg)

Note: Large Packaging can be provided for bulk requirements

# ECMAGROUT PU F 240

## Cleaning

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

## Precautions

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All opened drums should be purged with dry nitrogen and capped when not in use. It is advised to use an opened can as soon as possible. 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.

## Health and Safety

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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. All persons in contact with the materials should wear the appropriate protective clothing, spectacles and gloves

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