

ECMAGROUT PU G 820

TWO COMPONENT, LOW VISCOUS, HYDROPHILIC, WATER-REACTIVE, POLYURETHANE INJECTION SYSTEM TO BE USED AS ACTIVE WATER STOP FORMING AN ELASTIC GEL

Description

ECMAGROUT PU G 820 is a two component, hydrophilic, 100% MDI based, solvent and phthalate free, polyurethane injection system which acts as an active water stop system by producing an elastic gel.

Mixing ratio 1:1 in volume

ECMAGROUT PU G 820 has a special characteristic that the reaction time will be between 15-45 seconds independent from the amount of water present in the structure.

Advantages

- Deeper penetration to fine cracks due to exceptional low viscosity
- The cured material remains flexible
- Suitable for hot and cold climates
- Good adhesion to the substrate
- Can withstand high hydrostatic pressures
- The cured material is stable after curing
- A pneumatic 2 or 3 component injection pumps should be used
- The reaction time is almost independent from the amount of water to a maximum ratio G_820 to water <1:10 in the structure
- Suitable for applications where fluctuating groundwater levels are encountered.
- 100% MDI based and no TDI in it.
- The cured material is non toxic
- The system is suitable for use in contact with potable water

Uses

- A liquid but solidifying gel membrane applied to the positive side of a concrete structure from the negative side. (curtain grouting)
- A vertical barrier to fill voids /joints in masonry walls
- Preventative or remedial water proofing of structures.
- Shutting off heavy water leakages
- Repairing expansion joints
- Seal off wet, moist and water containing structures
- For sewer repair and manhole repair, manhole etc.
- Consolidation of loose or unstable soil

Packaging

20.9 kg packs

ECMAGROUT PU G 820 (Part A) = 10.9 kg

ECMAGROUT PU G 820 (Part B) = 10.0 kg



Technical Specification at 25°C and 50% R.H

Property	Typical Results
Viscosity of Base (A-comp) mPa.s	200–300
Viscosity of Hardener (B-comp) mPa.s	1–5
Mixed viscosity mPa.s	90-150
Mixing ratio in p.b.v.	1:1
VOC	<100 g/L
Intended use	Swelling fitted filling of cracks
Allowed min. width of the crack	0.1 mm
Moisture state of the crack	Dry, wet, moist or leaking cracks
Min and max use temperature	5°C–45°C
Corrosion behavior	Deemed to have no corrosive effect

Installation Guidelines

- ECMAGROUT PU G 820 should be applied by experienced grouting crews.
- ECMAS provides detailed method statements on all its products for use in various applications and must be referred to prior to starting the work.
- The information below is a summary intended for guidance only.
- Detailed information and guidance of pump and packer selection for specific requirements are available from ECMAS.
- ECMAGROUT PU G 820 is carried out through packers installed in holes drilled into the concrete.
- The holes should be drilled at 45 degree to the concrete surface and intercept at the mid-point of the estimated crack depth.

Mixing

- Due to the short reaction time ECMAGROUT PU G 820 can only be injected through a 2-component injection pump with a mixing ratio 1:1.
- Both components are pre-weight
- After preparation the components can be injected simultaneously

Injection Process

- The ECMAGROUT PU G 820 should be injected using an injection machine having a covered reservoir to avoid moisture coming into the A and B component.
- Large cracks should be sealed with the fast setting ECMAREP 504 prior to injection. Allow ECMAREP 504 to harden completely before injecting ECMAGROUT PU G 820.
- ECMAGROUT PU G 820 is then injected into the holes with a high-pressure pump capable of reaching pressures up to 200 bar. This forces the ECMAGROUT PU G 820 deep into the structure and allows penetration into the smallest cracks.
- Inject the packers sequentially; on a vertical crack start the injection from the lowest packer and continue to the next packer etc.

The injection work should be carried out with a twin piston pump, 1:1 ratio by volume. Consumption has to be estimated by the operator as it depending on the width and depth of the crack as well as the on the amount of water to be stopped.

Once the injection has to be stopped or is finished the mixing head should be cleaned by closing the valve for the A-component and flush the mixing head with the B-component or if the pump is equipped with a 3rd pump for flushing the mixing head.

Cleaning

Injection pumps should be flushed and tools cleaned immediately after use, before the resin sets, using ECMACLEAN. Once the resin has set, it can only be removed by mechanical means.

Precautions

- 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.
- To avoid condensation drums should only be opened when the material in the drum has the same or slightly higher temperature than the temperature on the working place.

Shelf Life & Storage

The shelf life is 6 months when stored between 5°C and 35°C with a less than 50% RH in a dry store in original, unopened containers. Once a pack has been opened, use immediately. Purging a part pack with nitrogen is essential. Contact ECMAS for more details.

Health and Safety

- These products are for industrial use only by trained operatives.
- Products should be disposed-off according to the local legislation. Refer to the MSDS for general recommendations.
- All persons in contact with the materials (or in the neighborhood of the injection) should wear the appropriate protective clothing, gloves and safety glasses.
- In case of spills and accidents, refer to the MSDS of the products or when in doubt contact your local ECMAS representative.
- Always wear appropriate protective gear for the job at hand according to local guidelines and regulations.
- Protective goggles should always be worn when handling chemical products.
- Please refer to the MSDS for further recommendations prior to use these products.

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