



MAXURETHANE[®] **INJECTION MONO CAT**

CATALYST FOR THE INJECTION SYSTEM **MAXURETHANE[®] INJECTION MONO**

DESCRIPTION

MAXURETHANE[®] INJECTION MONO CAT is a single-component, 100 % solids, solvent-free catalyst for the injectable polyurethane resin **MAXURETHANE[®] INJECTION MONO**.

APPLICATIONS

- Control of the gel time of the polyurethane resin **MAXURETHANE[®] INJECTION MONO** by adding a variable amount between 2 and 10 %, by weight.
- Control of high-pressure water ingress.
- Applications in capillary networks and very fine cracks, and for soil stabilisation.

ADVANTAGES

- Ensures complete reaction of the injected resin.
- Increases the degree of reaction and the foam volume of the injected resin.
- Extends the pot life of the premixed product.
- Easy to use. Only single-component injection equipment is required.
- Low viscosity, even during the injection process, ensuring good and deep penetration into the substrate.
- Environmentally friendly and solvent-free.

APPLICATION INSTRUCTIONS

See our technical note on the injection process described in the "**MAXURETHANE[®] INJECTION System**" for further information.

Mixing

MAXURETHANE[®] INJECTION MONO CAT is supplied separately to allow adjustment of the gel time of the injectable polyurethane resin **MAXURETHANE[®] INJECTION MONO** and to provide a longer pot life.

A catalyst dosage between 2 and 10 % by weight is recommended. The optimum percentage should be adjusted on site according to the specific conditions.

Under high-pressure conditions, the polyurethane resin must react immediately to prevent it from being washed out or carried away by the water pressure. To obtain a faster reaction, use 10 % catalyst. Conversely, for greater penetration, 2 % catalyst is recommended to ensure a greater reach of the resin within capillary networks and fine cracks, or when ground consolidation is required.

The induction time for 1 litre of resin mixed with 5 % catalyst at 20°C is approximately 20 seconds. Low hydrostatic pressure allows greater penetration of the product into both cracks and the concrete capillary network. The resin reacts with ambient moisture, so it is advisable to mix it with the catalyst immediately before starting the injection. Do not mix more material than can be injected within a reasonable period of time. The catalysed resin may, however, be stored for 3-4 days in airtight bottles or drums.

Injection of the mixture

It is essential that all equipment is dry. Avoid any contact between the mix and moisture to prevent premature reaction of the product. If the material reacts during injection, stop the equipment immediately and clean it with **MAXURETHANE[®] INJECTION CLEANER** to prevent blockage caused by solid foam forming inside the equipment.

Before carrying out the injection, it is advisable to assess the condition of the substrate, the type and number of fissures and cracks, the hydrodynamic and hydrostatic conditions, and the water quality.

Application conditions

Check the ambient temperature and humidity, as both determine the pot life of the material once mixed. As a general rule, high ambient humidity and temperature require a lower amount of catalyst.

Curing

The reaction time of the product mixed with 5 % catalyst is 2 minutes at 20°C. Higher temperatures will accelerate curing, while lower temperatures will delay the process.

Cleaning of tools and/or injection systems

All tools, utensils, mixing equipment and injection equipment must be cleaned immediately after use, or whenever work is interrupted for an extended period, with **MAXURETHANE® INJECTION CLEANER**. Circulate the cleaning fluid through the injection pump for several minutes. It is recommended to circulate mineral oil through the pump after the cleaning fluid if the pump will not be used for some time. Once polymerised, the material can only be removed mechanically. Do not use solvents for personal cleaning; use soap, detergents or specific cleaning products. During cleaning operations, ensure good ventilation of the work area.

CONSUMPTION

Consumption will vary depending on the application. An on-site trial is recommended to approximately determine consumption.

IMPORTANT INDICATIONS

- Observe the appropriate occupational safety measures during the injection process and when handling the products and pump.
- Avoid any contact between the mix and moisture to prevent premature reaction of the product.
- For any application not specified in this Technical Bulletin, or for additional information, please contact our Technical Department.

PACKAGING

MAXURETHANE® INJECTION MONO CAT is available in 25 kg and 5 kg drums.

Accessories

DRIZORO® can supply injection equipment, including manual pumps **DRIZORO® B1** or electric pumps **DRIZORO® A2**, injection packers, pressure hoses, etc.

STORAGE

Six months in the original unopened and undamaged packaging. Store in a cool, dry place, protected from moisture, frost and direct sunlight, at temperatures between 5°C and 35°C.

SAFETY AND HEALTH

Always wear protective equipment such as safety glasses, gloves and suitable clothing. A full-face mask is strongly recommended during injection. As with any pressurised injection work, accidental spills and rupture of injection packers or hoses may occur. If any component comes into contact with the skin, wash thoroughly with soap and water. Ensure adequate ventilation of the work area. If swallowed, seek immediate medical attention; do not induce vomiting.

Consult the Safety Data Sheet for **MAXURETHANE® INJECTION MONO CAT**.

Product and packaging disposal must be carried out in accordance with current legislation and is the responsibility of the end user of the product.

TECHNICAL DATA

Product characteristics	
Appearance	Liquid
Colour	Transparent / yellowish
Density at 20°C, DIN 53 217/1-2 (g/cm ³)	0,95 ± 0,1
Solid content, DIN 53189 (% , by weight)	> 99
Flash point (°C)	> 100
Catalyst addition (% , by weight of mix)	2 – 10
Application and curing conditions	
Induction time with 2 % / 5 % / 10 % catalyst (s)	40 / 19 / 10
Reaction time with 2 % / 5 % / 10 % catalyst (s)	5-9 min / 120 / 55
Cured product characteristics*	
Expansion ratio: (Final volume : initial volume)	10-20:1
Shrinkage	None
Toxicity	Non-toxic: solvent-free
Solubility in water	None
Chemical resistance	Resistant to most organic solvents, dilute acids and alkalis, and microorganisms.

* Data for product mixed with 5 % catalyst (by weight) at 20°C and 50 % R.H.

GUARANTEE

The information contained in this Technical Bulletin is based on our experience and technical knowledge, obtained through laboratory testing and literature reviews. **DRIZORO®, S.A.U.** reserves the right to introduce changes without prior notice. Any use of this information beyond the purposes expressly specified herein will not be the Company's responsibility unless confirmed in writing by us. The consumption, dosage, and yield data provided are for guidance only. These data are subject to variation due to the specific atmospheric and on-site conditions; therefore, reasonable deviations may occur. To determine actual performance, an on-site trial must be conducted under the client's responsibility. Our liability is strictly limited to the value of the purchased product. For any further inquiries, please consult our Technical Department. This version of the Technical Bulletin replaces the previous one.



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