



# **MAXURETHANE®**

## **INJECTION MONO**

### **DESCRIPTION**

**MAXURETHANE INJECTION MONO**, is a single component pre-polymer based on polyurethane resins which, upon contact with water, react to foam while expanding its volume up to 15 times.

It is a water reactive, non hydrophilic but hydrophobic resin type but it leads a non hydrofoam react , thus the resulting foam does not absorb water and will not be affected by water dryness: it will not shrink or swell.

The gel time of the product is adjustable by adding a certain percentage of **MAXURETHANE INJECTION MONOCAT**.

### **APPLICATION FIELDS**

- Water cut-off in:
  - Defective, cracked or honeycombed concrete.
  - Sealing construction and expansion joints in concrete.
  - Brick constructions.
  - Penetrating pipes.
  - Waste water tanks and drinking water reservoirs.
  - Sewers. Manholes. Utility boxes. Tunnels. Dams.
- Filling of large cavernous spaces and cracks in stones or concrete structures.
- Soil stabilisation.

### **ADVANTAGES**

- Single component. It reacts with the flowing water or humidity present in the soil.
- Low viscosity, even during injection procedure, which remains constant until the reaction begins. This ensures a good and deep penetration for the product.
- Easy to use. Just requires a single-component injection equipment.
- High performances. Water will not dilute it.
- Non shrink.
- High expanding ratio, up to 15 times.
- The stability of the chemical structure provides to the foam a high durability, high mechanical strengths, and capability to withstand heavy water pressures.
- Environmental friendly.
- The gel time changes depending on the used amount of **MAXURETHANE INJECTION MONOCAT**.

## APPLICATION INSTRUCTIONS

See general technical recommendations for injection procedure detailed in the "Introduction to MAXURETHANE INJECTION system".

**MAXURETHANE INJECTION MONO** and **MAXURETHANE INJECTION MONOCAT** are supplied separately in order to allow the adjustment of the gel time and to provide a longer shelf life.

### Mixing

A mixing ratio of accelerator to resin from 2% to 10% is recommended, being the optimum proportion that one has been checked on site. If critical high pressure water intrusions are present, **MAXURETHANE INJECTION MONO** must react immediately as it comes into contact with water. In order to accelerate the reaction rate, a 10% of catalyst must be used. On the opposite, a slightly catalysed product, i.e. 2%, will assure a good penetration when very fine capillary cracks are injected.

### Application

Temperature and humidity of the environment must be observed because both will determine the pot life of the already mixed batch. The higher temperature and relative humidity, the less accelerator is required. Since **MAXURETHANE INJECTION MONO** can react with the humidity of the air, it is advisable to prepare the mixture –in particular the addition of the accelerator- only immediately before the injection is about to start. Mix just the quantity that the equipment is capable to inject in a reasonable time depending on the conditions. Nevertheless, already mixed and catalysed resin could be stored for 3-4 days in bottles or pails if perfectly closed.

Since **MAXURETHANE INJECTION MONO** reacts mainly with the moisture existing in the substrate to be injected, the system is suitable for single component injection equipment. Hydrophobic resins, such as **MAXURETHANE INJECTION MONO**, do not need large amounts of water for the reaction unlike hydrophilic materials that is a simultaneous injection of water is not necessary. Only if the area of application seems to be dry, pre-injection of water is recommended.

It is essential to keep the equipment absolutely dry. Prevent any moisture comes into contact with the mixture in order to avoid a premature reaction of the product. If the reaction of the batch occurs while pumping, the machine must be immediately shut down and flushed with **MAXURETHANE INJECTION CLEANER** in order to avoid built-up and clogging of the equipment.

### Accessories

DRIZORO supplies injection equipment consisting of manual and electric-drill powered pumps, injection packers and pressure hoses, etc.

## Cleaning

Tools and mixing equipment are best cleaned immediately after use. DRIZORO provides **MAXURETHANE INJECTION CLEANER** to avoid built up and clogging of the equipment. Circulate the cleaner through the pump for several minutes.

## PACKAGING

**MAXURETHANE INJECTION MONO** is supplied in 25 and 220 kg drums.

**MAXURETHANE INJECTION MONOCAT** is supplied in 5, 25 and 50 kg drums.

**MAXURETHANE INJECTION CLEANER** is supplied in 25 and 220 l drums.

## STORAGE

Six months in its original, unopened containers. It must be stored in a dry and covered place and temperatures from 15°C and 30°C.

## SAFETY AND HEALTH

Protect your health. Safety goggles, gloves and safety clothing must be worn at all times. While injecting, a full face shield is strongly recommended. Spills and blow outs could happen the same as in any other pressure injection job.

In case one of the components comes into contact with skin, wash thoroughly with soap and water. Provide adequate ventilation in volume and pattern in the working area.

**MAXURETHANE INJECTION MONO** is not toxic but is a harmful composition. In case of eye contact, rinse thoroughly with clean water, but do not rub. If irritation continues, seek medical attention.

For further information, Safety Data Sheet for **MAXURETHANE INJECTION MONO** is available by request.

Disposal of the product and its empty containers must be made according to official regulations. This disposal must be made by the final user.

## TECHNICAL DATA

### Physical characteristics of the single component resin:

Appearance	Viscous liquid
Colour	Dark brown
Solids content, DIN 53189 (%)	99,2 ± 0,5
Density at 20 °C, DIN 53217 (g/cm <sup>3</sup> )	1,11 ± 0,03
Viscosity at 20 °C, DIN 53 019/1 (mPa.s) (Brookfield – RVT 2V20rpm)	400 ± 80
Flash point, DIN 52785 (°C)	>200

### Physical characteristics of foam (reaction at 20°C and 50% R.H.):

Induction time (s). Catalyst: 2% / 5% / 10%	40 / 19 / 10
End of reaction (min) Catalyst: 2% / 5% / 10%	5 - 6 / 2 / 55 sec
Expansion rate	10-20
Foam density (kg/m <sup>3</sup> )	30
Solubility in water	None

### GUARANTEE

The information contained in this leaflet is based on our experience and technical knowledge, obtained through laboratory testing and from bibliographic material. DRIZORO reserves the right to introduce changes without prior notice. Any use of this data beyond the purposes expressly specified in the leaflet will not be the Company's responsibility unless authorised by us. We shall not accept responsibility exceeding the value of the purchased product.



#### **DRIZORO, S.A.**

C/ Primavera 50-52 Parque Industrial Las Monjas  
28850 TORREJON DE ARDOZ – MADRID (SPAIN)  
Tel. 91 676 66 76 - 91 677 61 75 Fax. 91 675 78 13  
e-mail: [info@drizoro.com](mailto:info@drizoro.com) Web site: [drizoro.com](http://drizoro.com)

Company certificated: ISO 9.001 & ISO 14.001

