

Mapedrill SA1

Super-Absorbent Liquid Polymer

PRODUCT DESCRIPTION

Mapedrill SA1 is a liquid polymer with a high absorbing property, in order to decrease the fluidity of the ground in which it is injected. Once the polymer has absorbed water, it can be released only by chemical action and not by the squeezing of the ground.

Mapedrill SA1 can absorb 200 times its own weight in water. 60% of hydration is reached in approximately 5 minutes.

PRODUCT APPLICATION

Mapedrill SA1 is especially formulated for mechanised tunnelling and for civil engineering applications as for example, drilling operations. **Mapedrill SA1** is successfully used as waterproofing agent when drilling in presence of water: in fact, the polymer, mixed with the perforating fluid is conveyed during the tunnelling phases and distributed on the hole walls and when in contact with water it gives origin to the swelling process. This is the way for avoiding the circulation lack.

Moreover the lubricating quality of **Mapedrill SA1** reduces the friction between the drilling tools and in general among all the moving parts subjected to wear.

Mapedrill SA1 is employed in the mechanized tunnelling when, in presence of water or while drilling in water strata, the water content at the front, in the head chamber or in the screw conveyor needs to be reduced.

Mapedrill SA1 can absorb up to 200 times its weight, giving again the excavating materials its plastic characteristics for enabling an easier muck moving and removal.

Mapedrill SA1 can be used in several applications like:

- sealing for circulation loss;
- lubricant for pipe jacking;
- tunnelling;
- disposal of waste fluids.

PRODUCT DOSAGE

The dosage depends on the application field and on the soil water content. Our technical lab. is at complete disposal for evaluating the right **Mapedrill SA1** dosage according to the drilling soil characteristics. Please contact our "Underground Technology Team" technical service for verifying and eventually perfecting the using and dosing of the polymer **Mapedrill SA1**, always considering the application conditions.

STORAGE

Mapedrill SA1 must be stocked in its original package and at a temperature below the +50°C.

PACKAGING

25 and 200 kg plastic drums.

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Mapedrill SA1 is not hazardous according to the standards on the classification of mixtures. It is recommended to wear protective gloves and goggles and to take the usual precautions for handling chemical products.

The Safety Data Sheet is available upon request.

FOR PROFESSIONALS.

WARNING

While the indications and guidelines contained in this data sheet correspond to the company's knowledge and wide experience, they must be considered, under all circumstances, merely as an indication and subject to confirmation only after long-term, practical applications. Therefore, anybody who undertakes to use this product, must ensure beforehand that it is suitable for the intended application and, in all cases, the user is to be held responsible for any consequences deriving from its use.

TECHNICAL DATA (typical values)

PRODUCT PROPERTIES

Appearance:	light cream
Bulk Density (ISO 758) (g/cm³):	1.1 ± 0.02
Solubility:	insoluble in water
Hazard classification according to EC 99/45:	none. Before using refer to the "Safety instructions for preparation and application" paragraph and the information on the packing and Safety Data Sheet

**All relevant references of the product
are available upon request**

