

VALINJECT® 1C SOIL

Product Description

Solvent-free polyurethane injection resin for soil stabilization. Harmless for the environment and resistant to biological influence.

Characteristics / Advantages

VALINJECT 1C SOIL polyurethane injection system is a one component solvent free, very low viscosity pre-polymer ideally suitable for soil stabilization. In some circumstances can be used for crack repair in concrete. The generation of carbon dioxide gas will virtually improve the viscosity and make the resin penetrate in the finest sand. Reacted with water, it will form a very rigid polyurethane which yields a hydrophobic and chemically resistant conglomerate with the substrate (well saturated ground layers). A good compression strength is achieved in a very short time without shrinking or swelling.

VALINJECT 1C SOIL and its catalyst are very hygroscopic and packed under dry nitrogen. Use open containers as soon as possible or recap under dry nitrogen. Shake the catalyst well and make sure the mixture is homogeneous. Mix the resin and the accelerator in a ratio of 0,5 to 2%. The system can be injected as a single shot injection system using ordinary 1 component pumps (manual, pneumatic or electrical).

Technical Parameters

UNCURED POLYURETHANE PRE-POLYMER

Colour	Brown
Aspect	Liquid
Relative density at 25 °C	1,12 kg/l
Flashpoint	> 150 °C
Viscosity at 25 °C	< 25 mPa.s
Shelf life at 20 °C	12 months

PHYSICAL CONSTANTS OF THE CATALYST

Colour	Transparent
Aspect	Liquid
Relative density at 25 °C	0,98 kg/l
Flashpoint	> 150 °C
Viscosity at 25 °C	21 mPa.s

CHARACTERISTICS OF THE CURED PRODUCT

Compressive strength	ca. 12 MPa
Flexural strength	ca. 2 MPa
Density	ca. 1,1 kg/dm ³

REACTION TIME

Quantity of catalyst	Reaction
0,5 %	9 - 11 minutes
1,0 %	5 - 6 minutes
2,0 %	2 - 3 minutes

Indication at 20 °C.

Packaging

- Resin: 25 kg drums
220 kg drums
1000 kg IBC
- Catalyst: 0,5 l
5 l
25 l

Can be supplied under private label.

Storage

The VALINJECT components are very stable materials when properly handled. To avoid problems, it is very important to understand that these materials are both temperature and moisture sensitive. Therefore, materials should be stored in an area with temperatures not exceeding 30°C or not lower than 10°C. The maximum shelf life is 2 years. All partially used drums should be covered by nitrogen and resealed to prevent the ingress of moisture. Pumps should be cleaned with VALCLEAN, a cleaning product specially developed for cleaning and greasing of polyurethane injection pumps.

Safety and Health Precautions

For more information, consult the safety data sheet.

Legal Notes

All data in our product information are based on our current knowledge and experience. They do not release users from careful testing of the application and strict observation of the relevant processing regulations because of the wide range of possible influences during the application and use of our products. Legally valid assurances of specific characteristics or suitability for special purposes of application other than those provided in our documentation for the specific product cannot be inferred from our information. The recipient or processor of our products at their own responsibility must follow any protective rights or existing laws and provisions. Moreover, our general terms and conditions of sale and warranty are valid.