

ULTRAFINE RESIN

Rigid Water-Reactive Polyurethane



Soil liquefaction problems at a deep excavation site were overcome using ULTRAFINE RESIN; A fast-curing, hydrophobic polyurethane.

Description

ULTRAFINE RESIN is a low-viscosity polyurethane designed for single-component injection.

It permeates water-bearing soils, and reacts with water to encapsulate silts, sand and gravel in a rigid foam. Once cured, the hydrophobic polyurethane repels moisture and serves as a long-term solution to problems related to weak terrain.

Advantages

- Accelerator to control reaction time
- Produces good compressive strengths
- Resistant to corrosive environments and temperature fluctuations
- Solvent-free and non-toxic

Where to Use

Application – ULTRAFINE RESIN is suitable for soil stabilization applications in deep excavations, and dealing with problems such as soil liquefaction, sinkholes, subsidence, and construction of tie-back anchors and artificial root piles.

Substrate – soil, sands and gravels with high permeability

How to Use

Preparation – Drill injection holes or install injection pipes. Select appropriate accelerator ratio and verify that the resulting cure time conforms to project specifications and requirements. Use as low as 1% accelerator dosage for slow cure time or as much as 10% for fast cure time.

Application – Wipe resin containers to avoid contamination by moisture. At a dry location, pre-mix ULTRAFINE RESIN and desired ratio of accelerator. Mix thoroughly until blended. Inject using a single-component injection pump.

Clean Up – Flush pump, hoses and injection accessories with PUMP CLEANER.

Technical Data

Component -	RESIN	ACCELERATOR
Density (20°C) -	1.16	0.995
Viscosity -	40 cps	25 cps
Mixing Ratio -	1% - 10%	
Colour -	Dark brown	Clear
Physical State -	Liquid	Liquid
Shelf Life -	12 mos.	12 mos.
Packaging -	20 kg pails	2 kg bottles

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Limitations

- Reaction occurs with any moisture present
- Reaction times increase as ambient temperature decreases
- Reduction to shelf life after product is opened

Caution

Wipe resin containers to avoid contamination by moisture. Keep container closed when not pouring. Beware of pressure build-up in closed containers. Use only in adequate ventilation. Prevent contact with eyes, skin and clothing. Avoid breathing vapours. Do not ingest. Wear appropriate PPE including impermeable gloves and safety glasses.

First Aid

For eye contact: flush with water; if irritation occurs: seek medical attention. For skin contact: wash with soap and water; if irritation occurs: seek medical attention. For inhalation: move to fresh air; if difficult breathing occurs: seek medical attention. For ingestion: seek medical attention; drink water; do not induce vomiting. Refer to MSDS for more information.

Related Products

Ultrafine Accelerator, Pump Cleaner, Injection Pumps

Related Literature

Polyurethane Injection Products Overview, MSDS

Company Overview

Multiurethanes offers technical grouting services for soil stabilization and void filling applications for the same industries that you service; deep foundation excavations, heavy civil, tunneling and utilities. Our services include engineering, technical support, materials, and equipment.



Multiurethanes ULTRAFINE RESIN is used to stabilize soil seepages beneath shored excavations.

Technical Service

For additional information, please contact us: 1-800-663-6633 / info@multiurethanes.com

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