Ronacrete

Monotect Grout

Sodium Silicate Grout

DESCRIPTION

Monotect Grout is a three component chemical grouting system that can be used for a wide variety of applications ranging from permeation grouting to water shut off. It consists of Part A, which is a sodium silicate solution, Part B, which is an aqueous organic catalyst solution and Part C, which is an accelerator.

The mix ratios of the components can be varied from 1:1 to 1:5 to achieve a wide range of final mechanical properties. Accelerator rates can be varied from 0-5% by total weight to reduce the gel times from more than 2 hours to less than 10 seconds.

ADVANTAGES

- Ultra low viscosity
- Excellent results in finer sediments
- Variable mix ratios
- Variable strength for different applications
- Variable gel times

USES

- Permeation Grouting
- Soil Stabilisation
- Water cut off
- Stabilisation during tunnelling
- Stabilisation during horizontal boring
- Curtain and containment grouting

APPLICATION

Part C should be added to Part B at the required concentration. Part A and B can either be premixed and pumped using a single component system for longer gel time applications or should be pumped using a two component system set to the appropriate mix ratio and mixed at injection point using an appropriate static mixer.

For engineering applications it is critical that the site conditions and expected properties of the grouted sediment are known. A site survey consisting of in situ test grouting should be conducted if at all possible. Failing this laboratory tests should be conducted on sediment samples retrieved from the site. Always consult professionals experienced in grouting operations prior to use.

CLEAN UP

All components are water-soluble. Clean up using potable water.

SAFETY

- Avoid contact with skin and eyes.
- Wear safety glasses, gloves and overalls.
- Read the appropriate Material Safety Data Sheet (MSDS) before use.

STORAGE

- Store at between 10°C and 40°C.
- Keep containers closed when not in use.
- Stir components well before use.
- Shelf life minimum 24 months.

PACKAGING

Parts A and B 1000L IBCs, 200L Drums and 20L Plastic cubes. Part C: 1kg, 10kg and 20kg Plastic Pails.

Q CERTIFIED COMPANY HKQAA
ISO 9001 : 2008
Certificate No.: CC 1983

PRODUCT DATA

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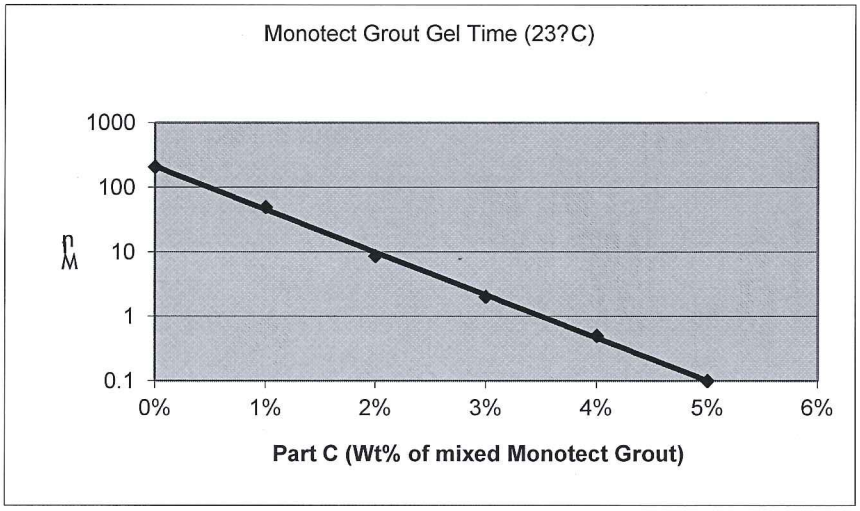
Physical Properties				
	Part A	Part B	Part C	
Appearance	Dense slightly viscous liquid	Low viscosity liquid	Crystalline powder	
Colour	Clear to hazy white, occasional tan tinge	Colourless	White	
Odour	None to slightly musty	Slight sweet odour	None	
Solubility in water	Miscible	Miscible	775g/L (@20°C)	
Density (@20°C)	1.39	0.95 – 1.05	1.76	
pH	10.9 – 11.4	6.8 – 7.2	2.1 (1% Solution)	
Mix Ratio (A:B)	100:0	50:50	40:60	30:70
Viscosity (cps)	180	2.5	2.1	2.0
Density (@20°C)	1.39 g/cm^3	1.20 g/cm^3	1.15 g/cm^3	1.11 g/cm^3

Gel Time (Mix ratio 1:1 A:B, 23°C) See Graph below.						
Part C (Wt % A+B)	0%	1%	2%	3%	4%	5%
Gel Time	3 hours	50 mins	9 mins	2 mins	30 sec	5 sec



Cured Properties	
Compressive strength: Dependant upon substrate and quality of application. 1:1:2% mix ratio permeation grouted into fine-medium quartz sand achieved average 5.6 MPa in 21 days. For critical engineering applications always conduct site trials if at all possible or conduct lab tests on sediment samples from subject area prior to designing grouting program to ensure suitability.	
Water Loss (21 days):	30% of total mass in gel samples air dried at 24°C 5% Relative Humidity

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