CCS™ GROUT I

HYDROPHILIC POLYURETHANE WATER CUT-OFF PREPOLYMER

TECHNICAL DATA SHEET FOR PROFESSIONAL CONTRACTOR USE ONLY

DESCRIPTION

CCS™ Grout I is a single-component, hydrophilic polyurethane liquid prepolymer which reacts freely with water in any proportion to form a foam or gel. Since water is a component of the cured product structure, the material can be affected by wet and dry cycles. The reacted material may shrink and swell as a result of the surrounding moisture content.

FEATURES

- Forms a Flexible Gasket or Plug
- Prevents Water Infiltration

MIXING

Before application, pre-mix CCS™ Grout I. All equipment used to mix the material must be dry to prevent the CCS™ Grout I from reacting.

Since the CCS™ Grout I mixture will only activate when it comes in contact with water, it does not need to be used immediately.

However, the surface may harden which will then need to be removed before the unhardened materials may be used normally.

MIX RATIO

The CCS™ Grout I : Water	General Properties
1:1 to 1:3	Tough Elastomeric Foam
1:4 to 1:10	Soft / Weak Gel

CCS™ Grout I can either react to a foam or gel on contact with water based on the mixing ratio. The product forms a flexible get at product to water ratios from 1:4 to 1:10. Less water results in a stronger gel.

Gel time is about 1 to 3 minutes varying with temperature and water saturation. At low product to water ratios of 1:1 to 1:3, CCS™ Grout I reacts to a flexible and closed cell foam under pressure.

INSTALLING

Multi ratio pump : For best results, CCS™ Grout I should be injected with a multi ratio pump at preset product to water ratio to achieve the desired gel consistency and properties.

Single component pump: The product may also be applied with single component injection equipment. The presence of sufficient water in the substrate is necessary for the product to form a gel. It may be advisable to introduce water prior to injection. In areas of very little water content and little counter pressure the product may expand to a foam.

For curtain / bladder injection methods behind below grade structures it is recommended to drill through the structure in a

TECHNICAL DATA

PHYSICAL PROPERTIES	TEST METHOD	VALUE
Color		Light Brown
Density	ASTM D3574	8.7 lb/gal
Viscosity @ 75°F (25°C)	ASTM D1638-74	Water: Gel 10:1 50 cp Water: Gel 5:1 100 cp
Flash Point	ASTM D93	200°C (93°C)
% Solids	ASTM D1010	80%
Solubility in Water		Gelation
Induction Time @ 68°F (20°C) (approximately)		<30 seconds
Gel Time (approximately)		100 seconds
Corrosiveness		Non Corrosive
Foam		
Ratio (Grout:Water)		1:1
Tensile Strength	ASTM D3574	430 psi
Tensile Elongation	ASTM D3574	462%
Bonding Strength		300-380
Die C		49
Shrinkage	ASTM D1042	<1% - 10%
Gel		
Ratio (Grout:Water)		1:5
Tensile Strength	ASTM D3574	165 psi
Tensile Elongation	ASTM D3574	>1250%
Bonding Strength		120-150
Die C		43
Shrinkage	ASTM D1042	<1% - 10%
Gel		
Ratio (Grout:Water)		1:8
Tensile Strength		150 psi
Tensile Elongation		>1250%
Bonding Strength		120-140
Die C		43
Shrinkage	ASTM D1042	<1% - 10%

pattern that is determined by the physical properties of the soil.

To create a standard checkerboard pattern, holes are drilled two feet (50 cm) apart from each other in a horizontal line. The next step is to drill holes in a line two feet (50 cm) above the first line in the same fashion but staggered. Begin injection at the highest point. Each packer should be injected until material penetrates the surrounding drill holes. Patterns may vary according to conditions on the jobsite.

All equipment, pumps and hoses must be dry. Avoid moisture contact with the mixture to prevent premature reaction. If product foams while pumping, immediately shut down the machine and flush with a cleaner to avoid built up and clogging of the equipment.

CLEAN UP

Excess mixed product is best removed from the work area and tools before it hardens. The use of rags and solvents such as acetone or heavy-duty detergents facilitates cleaning. Cured product may be removed from tools by soaking in an epoxy stripper.

PACKAGING & COLORS

- Standard package sizes of 5-gallon (18.9 liter) pails.
- Standard color is light brown.

SHELF LIFE

One year minimum in unopened, original containers when stored between 60 and 95°F (15-35°C) in a dry place away from sunlight.

LIMITATIONS

CCS™ Grout I is moisture activated. Keep all equipment dry to avoid any moisture contact with the mixture to prevent premature reaction of the product.

Do not mix more material than the amount that will be pumped within a reasonable time.

WARNING: This product contains Isocyanates and Solvent.

ChemCo Systems