

MULTI-GEL

Flexible Hydrophilic Polyurethane Grout

Product Overview

MULTI-GEL is a solvent-free, non-toxic, single-component water-reactive polyurethane injection resin. It reacts with water to form a flexible hydrophilic barrier. Depending on the amount of water in the mixture and upon curing, it will vary in consistency from strong, elastic, rubber-like foams to stable gels containing as much as 800% water. After curing, **MULTI-GEL** absorbs limited amounts of water and will shrink slowly if allowed to dry. These foams and gels help deflect excessive water away from penetrating the structure, ensuring a strong hydrophilic barrier.

Key Features

- **Flexible Hydrophilic Barrier:** Forms a durable, water-reactive barrier suitable for diverse environments and conditions.
- **Water Deflection:** Effectively deflects excessive water away from penetrating structures.
- **Solvent-Free and Non-Toxic:** Safe for use in a variety of applications without harmful effects.
- **Versatile Consistency:** Depending on water content during curing, **MULTI-GEL** can range from resilient foams to expansive gels.

Physical Properties of Uncured Materials

Colour	Light brown
Physical State	Liquid
Specific Gravity	1.09 – 1.12
Viscosity (25°C/77°F)	875 ± 150 cP
Shelf Life	Up to 12 months
Packaging	Available in 20 kg pails

Physical Properties of Cured Materials

	Water:Grout Ratio			
	1:1	3:1	5:1	8:1
Gel Time	110 sec	100 sec	90 sec	100 sec
Tensile Strength	431.1 psi	261 psi	>163.9 psi	>145 psi
Elongation	462.1%	1140%	>1250%	>1250%
Die-C Tear	49 pli	51.7 pli	43.1 pli	43.3 pli
Physical Form	Resilient Foam	Resilient Foam	Expansive Gel	Expansive Gel

Note: This table represents physical properties at a range of resin-to-water ratios. These values were generated while simulating a situation where **MULTI-GEL** was applied under pressure similar to typical field condition applications.

Temperature Effects on Viscosity

Temperature	Viscosity
10°C (50°F)	1960 cP
20°C (68°F)	1020 cP
25°C (77°F)	850 cP
30°C (86°F)	750 cP
40°C (104°F)	390 cP

Note: This table illustrates the approximate viscosity levels of **MULTI-GEL** when exposed to various temperatures during the time of injection.

Temperature Effects on Reaction Times

Temperature	Water:Grout Ratio		
	1:1	5:1	10:1
21°C (70°F)	110 sec	90 sec	110 sec
27°C (80°F)	85 sec	65 sec	70 sec
32°C (90°F)	65 sec	55 sec	60 sec

Note: The temperature of the components will also affect the reaction time; hotter materials will decrease the reaction or working time, and colder materials will increase it.

Applications

MULTI-GEL is ideal for sealing active cracks and joints in underground sewers and manholes, even in the presence of large seepages or flowing leaks.

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Application Guidelines

Preparation: Site preparation will depend on the type of injection method selected, as per the project specifications and requirements.

Application: Install using a fixed-ratio or variable-ratio two-component injection pump to produce a controlled gel based on the appropriate water-to-resin ratios, considering site conditions.

Clean Up: Flush pump, hoses, and injection accessories with **PUMP CLEANER** after use.

Recommended Equipment

Use with chemical grout injection pumps such as Impact 410, President Pump, and Lever Gun.

Limitations

- Low temperatures significantly affect viscosity.
- Avoid splashing water into open containers as the material is water-activated.
- Do not exceed 32°C when warming pails with heat bands or heated water baths.

Safety & Handling

Wipe resin containers to avoid contamination by moisture. Keep container closed when not pouring. Beware of pressure build-up in closed container. Follow all current regulations and standards. Wear suitable protective equipment to prevent skin or eye contamination. Ensure adequate ventilation and avoid breathing vapours. This material is intended for use by trained professionals with the proper equipment. Refer to the Safety Data Sheet (SDS) for detailed first aid information.

Customer Service & Orders

For additional information, please call us at 1-800-663-6633 or email info@multiurethanes.com.

Company Overview

Multiurethanes is a leading international supplier of materials, equipment, and technical support services for all types of grouting operations, including water cut-off, soil stabilization, concrete repair, sewer rehabilitation and waterproofing.