

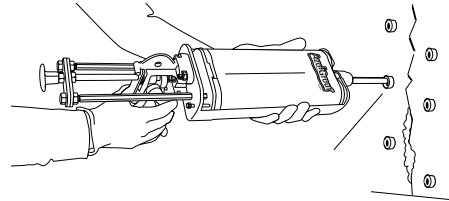
Hydrophilic Polyurethane Grout Cartridge Application



Product description

Azo-Grout™ 675 is a polyurethane waterstop that cures into the consistency of a resilient flexible foam. The hydrophilic character of Azo-Grout 675 absorbs enough water to react and then acts as a seal membrane to stop any additional flow of liquid. The convenient cartridge package allows the product to be used for leaking cracks and joints in constantly wet areas like sewers and manholes. The cartridges are suitable for repairs in confined spaces where pump injection is not practical.

Azo-Grout 675 is dispensed by using standard, two-component caulking guns equipped with static tube mixers. Hand, battery or air-operated guns are acceptable. No premixing of additional components is required. Static mix nozzles and nuts are provided with the cartridges.



Manhole joint injection.

Table 1: Physical properties of uncured materials

	Azo-Grout™ 675	Measurement	Test method
Color	light brown		visual
Specific gravity	1.1		ASTM D891
Viscosity at 77°F (25°C)	800-900	centipoise	ASTM D2196
Storage stability	12	months	
Toxicity	non-toxic		
Hazard class	not regulated		
Solids	100	percent	
Corrosiveness	non-corrosive		
Flash point	>220 (>104)	degrees Fahrenheit (Celsius)	

Table 2: Physical properties of cured materials

		Measurement	Test method
Gel time	110	seconds	
Tensile strength	431.1	psi	ASTM D638
Elongation	462.1	percent	ASTM D638
Die-C tear	49	pli	ASTM D624
Physical form	resilient foam		

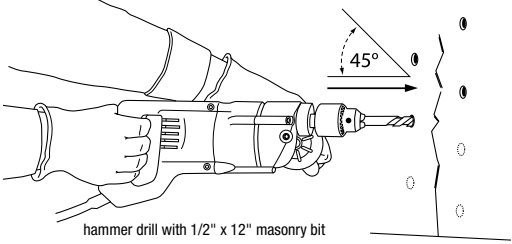
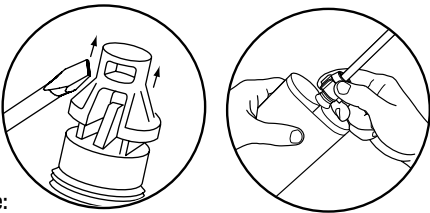
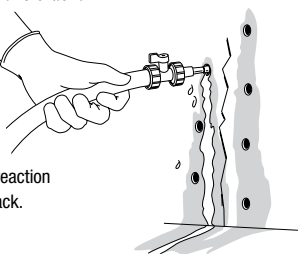

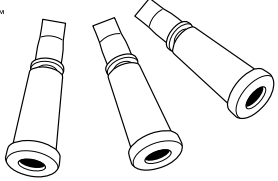

Note: Table 2 represents physical properties at a range of resin to water ratios. These values were generated while simulating a situation where Azo-Grout™ 675 was applied under pressure similar to typical field condition applications.



Figure 1. Application method

Azo-Grout™ 675 concrete crack repair instructions

Hydrophilic Polyurethane Grout

<p>Step 1. Drilling</p> <p>Drill a series of staggered holes along the full length of the leaking crack. Space the holes 4 to 6 inches apart starting at the bottom. For best results, insert the drill at a 45-degree angle toward the crack.</p>  <p>hammer drill with 1/2" x 12" masonry bit</p>	<p>Step 4. Assembling the cartridge</p> <p>Shake cartridge well before installing nozzle. Remove outer and inner cap on outlet port. Attach applicator nozzle with threaded retaining nut. Place the cartridge in the dispensing gun.</p>  <p>Note: shake well before removing pry-off closure.</p>
<p>Step 2. Flushing with water</p> <p>Attach the valve and nozzle as shown, to a garden hose. (A pump sprayer may also be used to supply water.) Starting at the bottom, flush each hole while adjusting the water to a low-pressure stream using just enough water to flush the debris from each hole and to wet the entire crack.</p>  <p>Tip: Water promotes a foaming reaction of Azo-Grout™ within the crack.</p>	<p>Step 5. Injecting Azo-Grout™</p> <p>Working from the bottom to the top, insert the nozzle into the first Bak-Stop® hole and squeeze the cartridge gun three to four times. Depending on the size of the leaking crack, one cartridge should be sufficient to treat approximately 8 feet.</p> <p><i>*See Step 3. Inserting Bak-Stop</i></p>  <p>Bak-Stop™</p>
<p>Step 3. Inserting Bak-Stop™</p> <p>Press the Bak-Stop™ into the first hole and tap firmly using a hammer to ensure the tip is fully inserted. Continue inserting the Bak-Stop ports until all of the holes are filled.</p> <p>Bak-Stop™ injection port</p> 	<p>Step 6. Cleaning and finishing</p> <p>With a flat-bladed tool, remove any excess grout on the exterior of the crack. For exposed walls that require a smooth appearance, remove Bak-Stop™ ports with pliers. Patch any holes using a putty knife, with the Azo-Grout™ Concrete Patch or similar patching material.</p> 

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Site preparation

The temperature of the wall may alter the reaction time of Azo-Grout 675 when it is injected. Colder walls and concrete will extend the reaction time. Warmer walls will shorten the reaction time. The reaction can be accelerated by heating Azo-Grout 675. Our recommended application temperature is between 55°F to 90°F (12.8°C to 32.2°C). See the tables to the right.

Yield

A typical cartridge will fill a volume of 302 cubic inches (5074 cubic centimeters) or a 3/16-inch (4.8-millimeter) crack in an 8-inch (203-millimeter) thick by 8-foot (2.4-meter) high wall.

Precautions

This material is intended to be used by trained professionals with the proper equipment. The following safety measures are recommended:

- Wear protective gloves, clothing, goggles, hearing protection for noise reduction and hard hats for falling debris.
- Do not eat, drink or smoke while in active contact with these materials.
- Avoid skin contact.
- Wash hands thoroughly with soap and cool water. Never wash the skin with a solvent.
- Anyone experiencing difficulty breathing when working with these materials or showing an allergic reaction should seek fresh air immediately and consult a physician if symptoms persist.

Health and safety

Safety data sheets and product labels must be reviewed prior to use or handling the material.

Table 3: Azo-Grout™ 675 Reactivity vs. Temperature

Degrees Fahrenheit	Degrees Celsius	Time
50	10	3 minutes
70	21	110 seconds
90	32	65 seconds

Table 4: Azo-Grout™ 675 Viscosity vs. Temperature

Degrees Fahrenheit	Degrees Celsius	Centipoise
50	10	1,960
70	21	950
	25	850
90	32	750

Material storage

Cartridges should be stored above 60°F (15°C) and below 100°F (38°C). Open cartridges should be used quickly to avoid the material gelling in the cartridge or static mix nozzle. All spills of Azo-Grout 675 should be disposed by absorbing the grout into an inert material and then transferring the mixture to an open top drum. Do not seal the waste drums for 24 hours to allow the Azo-Grout 675 to react completely. Dispose of waste material in accordance with state and local regulations.

Packaging

Azo-Grout 675 is available in kits consisting of 12, two-component cartridges; 12 static mix nozzles and nuts.

WARRANTY The information contained in this document is to assist customers in determining whether our products are suitable for their applications. Our products are intended for sale to industrial and commercial customers. The customer must inspect and test our products before use, and satisfy themselves as to the contents and suitability. Nothing herein shall constitute a warranty, expressed or implied, including any warranty of merchantability or fitness, nor is protection from any law or patent to be inferred. All patent rights are reserved. The exclusive remedy for all proven claims is replacement of our materials, and in no event shall we be liable for special, incidental or consequential damages.