





PRODUCT DESCRIPTION

AzoGrout 445 is a single component, hydrophobic polyurethane grout used for soil stabilization. The low-viscosity formula penetrates deeply into fine-grained soils, delivering thorough encapsulation and reliable structural reinforcement with less material. AzoGrout 445 is designed to be environmentally friendly and is PFAS free.

Use with Azo-Cat 23 to accelerate reaction time.

PROPERTY OVERVIEW

Viscosity	
Gel Time	
Tensile Strength	
Elongation	
Color	Light Brown
Shelf Life	1 Year
Sizes Available	<ul style="list-style-type: none"> • 5 gallon • 55 gallon

PRODUCT APPLICATIONS

Soil Stabilization

- Shoring excavation
- Building foundations
- River and lake embankments



Soil Stabilization

- Dust mitigation
- Sand traps
- Quicksand
- Erosion control



TABLE 1: PHYSICAL PROPERTIES OF AZOGROUT 445 (UNCURED)

Property	Value	Test Method
Color	Light Brown	Visual
Specific Gravity	1.112 - 1.118	ASTM 4659
Viscosity at 77 °F (25 °C)	80 - 90 cps	ASTM 4889
Hand Mix Gel Time	85 - 105 seconds	ASTM D7487
Storage Stability	1 Year	
Corrosiveness	Non-Corrosive	

TABLE 2: PHYSICAL PROPERTIES OF AZOGROUT 445 (CURED)

Property	Value	Test Method
Tensile Strength	900 - 1100 psi	ASTM 412
Elongation	13 - 17 %	ASTM 412
Compression of Soil Stabilized Materials	Neat: 750 - 850 psi (at ~11% deformation)	ASTM D4219
	Sand filled: 700-2100 psi (at ~ 35% deformation)	
Shore D	38 - 46	ASTM D2240

HOW TO USE

HAND-MIX REACTIVITY CHECK

Before application, it is important to understand how AzoGrout 445 will behave in the field. Gel time varies based on the amount of Azo-Cat 23 used, so performing a hand mix reactivity check allows you to dial in the correct ratio for your conditions. Target gel time is 1'35" ± 10". A pre-blend reactivity test can be performed by hand by mixing AzoGrout 445 and Azo-Cat 23 in paper cups. Add Azo-Cat 23 to AzoGrout prior to mixing with water. Use the following ratios for a reactivity check:

Recipe:

- 100 Parts by Weight of AzoGrout 445
- 4 Parts by Weight of Azo-Cat 23
- 5 Parts by Weight of Water

Steps:

1. Add the Azo-Cat 23 to the AzoGrout 445 and homogenize
2. Add the water and mix thoroughly
3. Start the timer: Determine the string gel time (the time it takes the mixture to just begin to gel)
4. The gel time can be modified by changing the quantity of Azo-Cat 23 in the recipe.
 - a. Reduce Azo-Cat 23 to slow the AzoGrout 445 gel time
 - b. Increase Azo-Cat 23 to accelerate the gel time

SITE PREPARATION

Each soil stabilization application requires an evaluation on how to best apply the grout to add structure to the soil. To stabilize any water bearing soil, sand, loam, or clay in various applications where concrete is present, including the outside of tunnels, bridge footings, and shafts, drill injection holes in the concrete in the area of reinforcement.

APPLICATION METHOD

Mix the appropriate percentage of Azo-Cat 23 with AzoGrout 445 based on your desired rise time. Temperatures of the repair area at the job site may affect the reaction speed. Start with a quantity of material that can be applied in a reasonable amount of time. Inject the mixture using a single-component injection pump.

Flush the pump, hoses, and all mechanical components with Azo-Purge MP2.

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.

MATERIAL STORAGE

Open containers of material should be used quickly to avoid moisture contamination. If a container needs to be resealed, it should be blanketed with nitrogen or dry air (less than -40 °F dew point) to minimize water exposure. All spills of AzoGrout 445 should be cleaned up by absorbing the grout into an inert material and then transferring the mixture to an open top drum. Drums should not be sealed for 24 hours. Dispose of waste material in accordance with state and local regulations. Refer to the Safety Data Sheets (SDS) for further information.

PACKAGING

AzoGrout 445 is available in 5-gallon pails (45 pounds) and 55-gallon drums (463 pounds).

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.

Azon USA, Inc.
2204 Ravine Rd.
Kalamazoo, MI 49004
269.385.5942
azogrout.com