

TECHNICAL DATA SHEET

AV-275 SOILGROUT™

HYDROPHOBIC POLYURETHANE FOAM

DESCRIPTION

Injected as a single component, catalyzed **AV-275** Soilgrout™ is a moisture activated MDI-based polyurethane resin. The chemical reaction of this product is catalyzed by using **AV-276** Soilcat™ and uses moisture as an initiator. **AV-275** was designed to bind together and waterproof loose granular soils. **AV-275** Soilgrout withstands wet/dry cycles, permeates well, and reacts quickly with water to form a dense, impermeable rigid foam.

APPLICATION

- Fills voids on the exterior of below-grade structures
- Stops high flows in below-grade structures
- Stabilizes soil to prevent soil erosion, sink holes, sinking foundations, and infiltration of water and silty soils

FEATURES AND BENEFITS

- Low viscosity allows for excellent permeation
- Expands up to 3,000%
- No VOC
- Pumped as a single component
- Controllable reaction time by adjusting **AV-276** volume
- Withstands wet/dry cycles

GROUTING TECHNIQUES

- Curtain Grouting
- Probe Grouting
- Pressure Injection

HOW IT WORKS

When injected into the soil, the low viscosity resin will react with moisture and begin to expand. The quick reaction produces a very dense, closed cell, rigid foam impermeable to water.

CATALYSTS

- **AV-276** Soilcat – catalyst, 32 oz. (.95 L) container

PACKAGING - Product packaged by weight based on specific gravity.

Drum	Net Wt. 484 lbs. (220 kg)
Pail	Net Wt. 44 lbs. (20 kg)
Gallon	Net Wt. 8 lbs. (3.6 kg)
Dual Cartridge	AV-275 – 750 ml AV-276 – 75 ml

SHIPPING

- Motor Class 55
- Non-Hazardous
- Air freight available

CLEANING PRODUCTS

- **AV-208** Technical Grade Acetone™ (CAS# 67-64-1) – removes moisture from equipment
- **AV-284** Pump Wash™ (Proprietary Blend) – removes uncured resin from pump and hose
- **AV-222** Cleaner™ (Proprietary Blend) – removes cured resin from equipment

STORAGE

Store between 45°F – 95°F (7°C – 35°C) in a dry atmosphere. Keep lid tightly closed when not in use. Packaged under dry nitrogen to keep moisture out and extend shelf life.

MIX PROCEDURE

Typically, one container of **AV-276** Soilcat is used per 5-gallon container of **AV-275** Soilgrout. Depending on the desired reaction time, **AV-276** may be doubled. Mix thoroughly, but slowly, to avoid creating bubbles in the solution. Perform the standard cup test with site water to determine the desired reaction time.

PROPERTIES*

AV-275 – UNCURED

Appearance:	Black/brown liquid
Corrosiveness:	Non-Corrosive
Solids:	100%
Viscosity:	30-55 cP @ 77°F (25°C) ASTM D-4889
Flash Point:	309.2°F (154°C)
Specific Gravity:	1.114 @ 72°F (22°C) ± 3%
Density:	9.3 lb./gallon ± 3% 1,114 kg/m ³ ± 3%

AV-275 – CURED*†

Tensile Strength:	758.423 kPa (110 psi) ± 3%
Density:	1,074 kg/m ³
Bending Strength:	213 psi
Bond Strength:	99 psi
Shrinkage:	0%
Toxicity:	Non-Toxic

† Cured properties vary depending on application and field conditions.

AV-276

Appearance:	Light yellow liquid
Viscosity:	15-32 cP @ 70°F (21°C)
Flash Point:	>200° F (93.3°C)

*Laboratory Results

Gel (Cure) Times for AV-275 Soilgrout (Min:Sec)				
Temperature		Half Catalyst	Full Catalyst	Double Catalyst
	40°F / 4°C	8:17	4:30	2:55
	50°F / 10 C	7:05	4:08	2:27
	60°F / 15°C	4:30	3:18	2:10
	70°F / 21°C	3:40	2:08	1:00

PERFORMANCE

Flush equipment with **AV-208** before and after use to remove moisture and clean equipment. Performance will be influenced by site conditions. If site temperatures are low, heat the product to recommended operating temperatures of 60°F – 90°F (16°C – 32°C) and/or increase catalyst amount by 1% – 2%. Do not exceed more than 64 oz. of **AV-276** Soilcat per pail of **AV-275** Soilgrout. Do not use open flame as a heat source. Excess amounts of **AV-276** may adversely affect performance. Because catalyzed resin will react to moisture from the air, use product soon after mixing for best results.

SAFETY

Always use OSHA-approved personal protective equipment (PPE). Refer to the SDS for complete safety precautions. The SDS is available by request or via online download at avantigrout.com.

NOTICE

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AV-275 Soilgrout is tested and certified by WQA against NSF/ANSI 61 Drinking Water System Components
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