



AVANTI

AvantiGrout stops leaks. Permanently.

TECHNICAL DATA SHEET

AV-278 LOW VIS HYDRO

HYDROPHOBIC POLYURETHANE FOAM

DESCRIPTION

Injected as a single component, AV-278 Low Vis Hydro is a moisture activated MDI-based polyurethane resin. The chemical reaction of this product is catalyzed by using AV-279 Low Vis Accel and by using moisture as an initiator. AV-278 was designed with soil permeation in mind – low viscosity for penetration with very high expansion to fill voids, stop active or potential water leaks, and stabilize soils. AV-278 Low Vis Hydro withstands wet/dry cycles, permeates well, is nonflammable, and reacts quickly with water to form a dense, impermeable semi-rigid foam.

APPLICATION

- Ground modification/slope stability for prevention of landslides, erosion, or any place where site conditions or project requirements dictate modification of the existing soil properties
- Fills voids on the exterior of below-grade structures
- Stops leaks in below-grade structures

FEATURES AND BENEFITS

- Low viscosity allows for excellent permeation
- Expands 1500% - 2000% its initial liquid volume
- Solvent-free
- Pumped as a single component
- Controllable reaction time by adjusting AV-279 volume
- Endures wet/dry cycles without effecting cured product

GROUTING TECHNIQUES

- Probe Grouting
- Curtain Grouting

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.

ADDITIVES

- AV-279 Low Vis Accel – catalyst, 1 gallon (3.8 L) container

PACKAGING

- 5 gallon (19L) pails – approximately 45 lb (20.5 kg) – 24 pails/pallet

SHIPPING

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

STORAGE

Store in temperatures within or near 60°F – 100°F (16°C – 38°C) in a dry atmosphere.

CLEANING PRODUCTS

- AV-208 – Acetone, Technical Grade (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

PROPERTIES*

AV-278 – UNCURED

Appearance:	Brown resin
Viscosity:	25 – 100 cP @ 72°F (22°C)
Flash Point:	>200°F (>93°C)
Specific Gravity:	1.171 @ 72°F (22°C) ± 3%
Weight:	9.74 lb/gal ± 3% (1.167 kg/L ± 3%)

AV-278 – CURED

Appearance:	Milky colored rigid foam
Compressive Strength:	TBD
Toxicity:	Non-toxic

AV-279 Low Vis Hydro Accel

Appearance:	Light yellow liquid
Viscosity:	10 cP @ 72°F (22°C)
Flash Point:	>200°F (>93°C)
Specific Gravity:	0.986 @ 72°F (22°C) ± 3%
Weight:	8.21 lb/gal ± 3% (0.984 kg/L ± 3%)

*Laboratory Results

MIX PROCEDURE

Depending on the desired reaction time, add one 128 oz. (2 L) container of AV-279 Low Vis Accel to the AV-278 Low Vis Hydro resin. Mix thoroughly. Perform the standard cup test with site water to determine the desired reaction time. Use resin within one hour of initial mixing.

PERFORMANCE

Flush equipment with AV-208 before and after use to remove moisture and clean equipment. Performance will be influenced by atmospheric conditions, but will not prevent the reaction from taking place. 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 maximum recommended amount of 248 oz (7.6 L) of AV-279 Low Vis Accel per 5-gallon container of AV-278 Low Vis Hydro. Do not use open flame as a heat source. Excess amounts of AV-279 may adversely affect performance.

SAFETY

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

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