

TECHNICAL DATA SHEET

AV-278 LOW VIS HYDRO™

HYDROPHOBIC POLYURETHANE FOAM

DESCRIPTION

Injected as a single component, catalyzed **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 uses 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** withstands wet/dry cycles, permeates well, and reacts with water to form a dense, closed-cell, 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 up to 4,000-6,000%
- Solvent-free
- Pumped as a single component
- Controllable reaction time by adjusting **AV-279** volume
- Withstands wet/dry cycles

GROUTING TECHNIQUES

- Probe Grouting
- Curtain Grouting
- Pressure Injection

HOW IT WORKS

Injected into the soil as a single component, the low viscosity resin reacts with moisture to form a dense, closed-cell, impermeable semi-rigid foam.

ADDITIVES

- **AV-279** Low Vis Accel – catalyst, 78 oz. (2.3 L)

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)

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 in temperatures within or near 45°F – 95°F (7°C – 35°C) in a dry atmosphere.

PROPERTIES*

AV-278 – UNCURED

Appearance:	Brown resin
Viscosity:	25 – 100 cP @ 72°F (22°C)
Flash Point:	244.4°F (118°C)
Specific Gravity:	1.171 @ 72°F (22°C) ± 3%
Density:	9.77 lb./gal ± 3% 1,171 kg/m ³ ± 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:	15-25 cP @ 72°F (22°C)
Flash Point:	>200°F (>93°C)
Specific Gravity:	0.986 @ 72°F (22°C) ± 3%
Density:	8.23 lb./gal ± 3% 986 kg/m ³ ± 3%

*Laboratory Results

Gel (Cure) Times for AV-278 Low Vis Hydro (Min:Sec)				
Temperature		Half Catalyst	Full Catalyst	Double Catalyst
	40 °F / 4 °C	2:00	1:15	0:57
	50 °F / 10 °C	1:43	1:05	0:45
	60 °F / 15 °C	1:20	0:48	0:34
	70 °F / 21 °C	1:05	0:40	0:25

MIX PROCEDURE

Depending on the desired reaction time, up to one container of **AV-279** Low Vis Accel can be used (see chart below). Do not use more than one container of AV-279. Mix thoroughly, but slowly, to avoid creating bubbles in the solution (air bubbles will turn into moisture). Perform the standard cup test with site water to determine the desired reaction time.

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 use open flame as a heat source. Excess amounts of **AV-279** 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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