



TECHNICAL DATA SHEET

AV-254 GELSEAL™

HYDROPHILIC URETHANE GEL

DESCRIPTION

AV-254 Gelseal™ is a prepolymer resin with excellent permeation properties when injected in water. It quickly permeates the soil and cures to create an effective water barrier while providing superb soil stabilization.

APPLICATION

- Stops water infiltration into manholes, sanitary and storm sewer mainlines, joints, tunnels, mines, and other underground structures by stabilizing surrounding soils
- 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

FEATURES AND BENEFITS

- Can be injected through remote packer equipment
- Five gallons of material will make up to 45 gallons of active solution
- Solvent-free system
- Non-toxic

GROUTING TECHNIQUES

- Probe Grouting
- Curtain Grouting
- Remote Packer

HOW IT WORKS

AV-254 will be injected using a multi-component variable ratio pump. Two containers will be used: one for water, the other for **AV-254**. Injecting an 8:1 ratio (water to **AV-254**) into the soil or external substrate will produce a strong gel/soil matrix. Additives are available to modify the cured gel characteristics.

OPTIONAL ADDITIVES

- **AV-105** Gel Guard™ – reduces freezing point (add to water tank)
- **AV-257** Icoset™ – increases strength and adhesive qualities (add to water tank)
- **Dyes** – used extensively for tracking grout flow (add to water tank)

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

PROPERTIES*

UNCURED

Appearance: Pale yellow liquid
 Viscosity: 175–450 cP @ 72°F (22°C);
 10 cP in solution
 Flash Point: >200°F (>93°C)
 Specific Gravity: 1.034 @ 72°F (22°C) ± 3%
 Weight: 8.63 lbs./gal ± 3% (1,034 kg/m³ ± 3%)

CURED

Appearance: Off-white resilient gel mass
 Compressive: TBD
 Toxicity: Non-toxic

*Laboratory Results

MIX PROCEDURE

Gently shake or stir before using. No pre-mixing required. Perform the standard cup test with site water to determine the desired properties. An 8:1 ratio of water to **AV-254** produces a strong gel.

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). Do not use open flame as a heat source. At temperatures of 45°F (7°C), the viscosity of the product can significantly increase, making the miscibility with the reaction water more difficult.

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. Keep container tightly closed when not in use. Packaged under dry nitrogen to keep moisture out and extend shelf life.

Note: storage of opened/partial containers at the lower range of the recommended storage temperature is not advised. The moisture in the air of the head space above a partial container might condensate and causes the grout to premature gel in the container.

SAFETY

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

NOTICE

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