

# AV-254 Gelseal

Urethane Gel

## General Specifications

### Description

AV-254 Gelseal is a chemical grouting product which forms a gel mass when it comes in contact with water. AV-254 is a low viscosity urethane prepolymer grout and is applied in much the same manner as acrylamide grout, but has the advantages of being a one-component system. AV-254 Gelseal has superior strength and safety features compared to other grouts. After curing, AV-254 Gelseal forms a flexible and effective barrier to water infiltration. The strength of AV-254 Gelseal can be improved by the addition of AV-257 Icoset (gel reinforcing agent) added to the water side.

### General Uses

#### Sealing:

- Stop infiltration into manholes (brick, mortar or precast)
- Sealing of pipe joints through commercial packer equipment for repairing leakages in sanitary and storm sewer pipes
- Sealing of any underground structure by external substrate stabilization

#### Stabilizes soil around:

- Manholes / Pipe joints / Service laterals / Tunnels and dams

### Viscosity

10 CPS in solution

### Ratio

8:1 (Water to Resin)

5 Gallon Pail = 45 Gallon batch

### Additives

AV-257 Icoset – increases compressive and tensile strength

AV-255G Grout Side Accelerator

### Packaging

Pail – 5 Gallon – Gross Weight 50 lbs. ea. – 24 pails per pallet

### Shipping

Motor Class 55

Hazard Class: Non-Hazardous

#### Air Freight available for:



5 Gallon Pail



### Cleaning Products

AV-208 – Acetone, Technical Grade

AV-284 – Pump Wash

## Technical Specifications

### Description

AV-254 is a low viscosity urethane prepolymer grout and is applied in much the same manner as acrylamide grout, but has the advantages of being a one-component system. AV-254 Gelseal has superior strength and contains no acetone.

### Properties: Uncured

Appearance: Amber liquid, slightly sweet odor

Solids Content : 78%

Viscosity: 340 cps @ 75°F

ASTM D-1638

Flash Point: 285°F (140.5°C)

Corrosiveness: Non-corrosive

### Properties: Cured Gel (8:1)

- Gel time is 40 seconds at 70°F (pH @7). The gel time is independent of water/AV-254 Gelseal ratio between 6:1 and 10:1. At high water to polymer ratios the gel time is considerably retarded. Gel time can be reduced by adding accelerator to the water side.
- No shrinkage was observed after one week at 70°F and relative humidity of 100%
- Influence of pH: No gelification in highly alkaline (pH>10) or strongly acidic (pH<3) media. The gel time increases with decreasing pH values.
- Cured material is resistant against normal sewer effluents.

### Mix Ratio

AV-254 Gelseal is cured by the reaction with water. However, larger quantities of water can be absorbed in the reaction mass, and the properties of the cured product are therefore determined by the mix ratio. In the range of 5:1 to 9:1, a strong gel is obtained.

### Storage

AV-254 Gelseal is sensitive to moisture and moderately sensitive to high storage temperatures. Therefore, we recommend long term storage at 40-80°F under dry conditions. Long term storage temperatures should not exceed 80°F. Once a pail has been opened, the useful life of the material is greatly reduced, and it should be used as quickly as possible.

AV-254 Gelseal should be properly removed from all application equipment due to the high risk of moisture contamination. Immediately after use, hoses and pumps can be cleaned with AV-208 Acetone or AV-284 Pump Wash. A nitrogen blanket moisture barrier is added to the pail of AV-254 Gelseal to retard premature catalization of resin in the pail due to humidity.

### MSDS

Available by request, or download at [www.avantigrout.com/MSDS](http://www.avantigrout.com/MSDS)

### Safety

This product contains Toluene Diisocyanate (TDI). It should be used only in well ventilated areas in order to keep the vapor concentration low. Eye contact and repeated skin contact should be avoided. Normal protective clothing such as gloves and goggles are recommended. A self-contained breathing apparatus should be worn in confined spaces where there is little ventilation and TDI vapors are likely to be high.

### First Aid

**Eyes:** Immediately flush eyes with water for 15 minutes. Get medical attention.  
**Skin:** Wash affected area with soap and water. Remove contaminated clothing.  
**Inhalation:** Remove to fresh air. If breathing is difficult, get medical attention.  
**Ingestion:** Drink 2 glasses of water. Call a physician.

Note: Never give anything by mouth to an unconscious or convulsing person.

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