DESCRIPTION
AV-118 is an ultra-low viscosity chemically-activated gel available as a liquid. Having the same viscosity as water, AV-118 can permeate anywhere water can travel and cures within a controllable time frame anywhere from 5 seconds to ±10 hours. Once it cures, it creates an effective, long-lasting water barrier while providing superb soil stabilization.

APPLICATION
- Stops water infiltration into manholes, sanitary and storm sewer mainlines, joints, laterals, tunnels, mines, and various other geo-technical applications and underground structures by stabilizing external substrate
- 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
- Thinnest product on the market
- Can be injected through remote packer equipment
- Controllable reaction times from seconds to hours
- Will not undergo syntheses
- No suspended solids
- Higher strength compared to acrylates
- Greater longevity compared to silicates

GROUTING TECHNIQUES
- Tube-a-Manchette (TAM) Grouting
- Probe Grouting
- Curtain Grouting
- Remote Packer

HOW IT WORKS
AV-118 is injected using a stainless steel, dual-component pump from two containers (see mix procedure). Injecting a 1:1 ratio into the soil or external substrate will produce a strong, impermeable gel obtained via a copolymerization reaction. Additives are available to modify the reactions and cured gel characteristics.

OPTIONAL ADDITIVES
- AC-50W Root Inhibitor – inhibits future root growth (add to grout tank)
- AV-257 Icoset – increases strength and adhesive qualities (add to grout tank)
- KFe (Potassium Ferrocyanide) – extends gel time (add to grout tank)
- AV-105 Gel Guard – reduces freezing point (add equal amounts to both tanks)
- Dyes – used extensively for tracking grout flow

PACKAGING
Product packaged by weight based on specific gravity,
- Tote = Net Wt. 2,430 lbs. / Volume 262 – 270 gal.

SHIPPING
- Motor Class 70
- Non-hazardous
- Motor freight available
- Air freight available

PROPERTIES*
UNCURED
- Appearance: Clear water-white liquid
- Viscosity: 1 – 2 cP @ 72°F (22°C) in solution
- Flash Point: >200°F (>93°C)
- Specific Gravity: 1.04 @ 72°F (22°C) ± 3%
- Weight: 8.66 lbs./gal ± 3% (1,038 kg/L ± 3%)
- Toxicological: See SDS

CURED
- Appearance: Clear gel mass
- Hydrated: < 10⁻⁸ cm/s
- Conductivity: 120 psi (2585 kPa)
- Static Pressure: Non-toxic

*Mixture Results

MIX PROCEDURE (See Mixing Instructions)
Tank A: Add 10 gallons (37.8 L) of water, add one liquid drum of AV-118 to solution, add 0.5 gallons (1.9 L) of AV-101 and fill with water up to 30 gallons. Tank B: Add 10 gallons (37.8 L) of water, add 5 lbs. (2.27 kg) of AV-103, and then bring to 30 gallons with water. Makes a 60 gallon (227 L) batch. Note: Ingredients are only compatible with stainless steel or plastic.

PERFORMANCE
Performance will be influenced by site conditions. If site temperatures are low, heat the product to recommended operating temperatures of 60°F – 100°F (16°C – 38°C). Decreasing pH may extend cure time. High minerals/metallic content may adversely affect gel time. Refer to AV-118 Technical Manual for complete product information.

CLEANING PRODUCTS
Use water with light detergent.

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

SAFETY
Use of AV-118 is authorized by Avanti International only after completion of the required Safe Operating Practices Program (SOPP). Always use OSHA-approved personal protective equipment (PPE). Refer to the SDS for complete safety precautions. The SDS, mixing instructions, and Technical Manual are available by request or via download at www.AvantiGrout.com.

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