DESCRIPTION
Injected as a single component, catalyzed AV-280 Hydrofoam is a moisture activated, high viscosity, MDI-based polyurethane resin. The chemical reaction is catalyzed by using AV-281 Hydrocel and uses moisture as an initiator. AV-280 was designed to not easily wash away where high volume water flow is present. It is injected into the substrate and reacts with moisture to fill voids, stop active or potential water leaks, and stabilize coarse materials. AV-280 withstands wet/dry cycles and cures to form a dense, impermeable semi-rigid foam.

APPLICATION
• Fill large voids via curtain grouting or probe grouting
• Stabilizes coarse soils or gravel
• 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
• Expands 1,500% – 2,000%
• Cures to a semi-rigid foam
• Withstands wet/dry cycles
• Pumped as a single component
• Controllable reaction time by adjusting AV-281 volume
• Solvent-free system
• Non-toxic

GROUTING TECHNIQUES
• Probe Grouting
• Curtain Grouting
• Pressure Injection

HOW IT WORKS
When injected into the soil, the high viscosity resin will react with moisture and begin to expand. The reaction produces a very dense, closed cell foam impermeable to water.

ADDITIVES
• AV-281 Hydrocel – catalyst, 16 oz, (0.75 L) container

PACKAGING
Product packaged by weight based on specific gravity.
• Drum = Net Wt. 474 lbs / Volume 48.5 – 49.8 gal.
• Pail = Net Wt. 44 lbs / Volume 4.55 – 4.63 gal.
• Gallon = Net Wt. 8 lbs / Volume -1 gal.

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

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

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

---

Avanti

TECHNICAL DATA SHEET

AV-280 HYDROFOAM

HYDROPHOBIC POLYURETHANE FOAM

PROPERTIES*

<table>
<thead>
<tr>
<th>Property</th>
<th>AV-280 – UNCURED</th>
<th>AV-280 – CURED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Amber liquid</td>
<td>Pale yellow rigid foam</td>
</tr>
<tr>
<td>Viscosity</td>
<td>1,700 – 2,200 cp @ 72°F (22°C)</td>
<td>10 cp @ 72°F (22°C)</td>
</tr>
<tr>
<td>Flash Point</td>
<td>&gt;200°F (&gt;93°C)</td>
<td>&gt;200°F (&gt;93°C)</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.14 @ 72°F (22°C) ± 3%</td>
<td>0.98 @ 72°F (22°C) ± 3%</td>
</tr>
<tr>
<td>Weight</td>
<td>9.49 lbs/gal ± 3% (1.137 kg/L ± 3%)</td>
<td>8.21 lbs/gal ± 3% (0.984 kg/L ± 3%)</td>
</tr>
</tbody>
</table>

AV-281 Hydrocel

<table>
<thead>
<tr>
<th>Property</th>
<th>AV-281 – UNCURED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Light yellow liquid</td>
</tr>
<tr>
<td>Viscosity</td>
<td>10 cp @ 72°F (22°C)</td>
</tr>
<tr>
<td>Flash Point</td>
<td>&gt;200°F (&gt;93°C)</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>0.98 @ 72°F (22°C) ± 3%</td>
</tr>
<tr>
<td>Weight</td>
<td>8.21 lbs/gal ± 3% (0.984 kg/L ± 3%)</td>
</tr>
</tbody>
</table>

Laboratory Results

MIX PROCEDURE
Typically, one container of AV-281 Hydrocel is used per 5-gallon container of AV-280 Hydrofoam. Depending on the desired reaction time, AV-281 may be doubled. Mix thoroughly, but slowly, to avoid creating bubbles in the solution. 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 exceed more than 32 oz, (1 L) of AV-281 Hydrocel per 5-gallon container of AV-280 Hydrofoam. Do not use open flame as a heat source. Excess amounts of AV-281 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 www.AvantiGrout.com.

NOTICE
The data, information and statements contained herein are believed to be reliable, but are not construed as a warranty or representation for which Avanti International assumes any legal responsibility. Since field conditions vary widely, users must undertake sufficient verification and testing to determine the suitability of any product or process mentioned in this or any other written material from Avanti for their own particular use. NO WARRANTY OF SUITABILITY OR FITNESS FOR A PARTICULAR PURPOSE IS MADE. In no case shall Avanti International be liable for consequential, special, or indirect damages resulting from the use or handling of this product.

<table>
<thead>
<tr>
<th>Temperature (°F)</th>
<th>Gel (Cure) Times for AV-280 Hydrofoam (Min:Sec)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Half Catalyst</td>
</tr>
<tr>
<td>40°F</td>
<td>10:20</td>
</tr>
<tr>
<td>50°F</td>
<td>9:15</td>
</tr>
<tr>
<td>60°F</td>
<td>7:58</td>
</tr>
<tr>
<td>70°F</td>
<td>6:47</td>
</tr>
</tbody>
</table>