



## TECHNICAL DATA SHEET

# AV-248-HV FLEXSEAL HV™

## HYDROPHOBIC POLYURETHANE FOAM

### DESCRIPTION

Injected as a single component, catalyzed **AV-248-HV** Flexseal HV is a moisture activated MDI-based polyurethane resin. The chemical reaction is catalyzed by using **AV-249-HV** Cat-HV™ and uses moisture as an initiator. Like other hydrophobics, **AV-248-HV** Flexseal HV withstands wet/dry cycles and reacts with moisture; AV-248-HV forms a resilient, impermeable **flexible** foam. This high quality resin is designed for sealing active and potential water leaks in various cracks, and annular spaces where flexibility is needed but is susceptible to wet/dry cycles. Avanti's **AV-248-HV** is one of the most versatile products on the market.

### APPLICATION

- For use above or below grade in humid or arid atmospheres
- Fills various cracks and pipe penetrations
- Stops leaks in concrete structures
- Designed for tunnels, mines, dams, reservoirs, block walls and structures that may shift

### FEATURES AND BENEFITS

- Expands 400% – 600%
- Solvent-free system
- Controllable reaction time by adjusting **AV-249-HV** Cat-HV volume
- Withstands wet/dry cycles
- Unique hydrophobic that cures into a **flexible, closed-cell foam**

### GROUTING TECHNIQUES

- Expanded Gasket Placement Technique (EGP)
- Variable Pressure Application Technique (V-PAT) – Crack Injection

### HOW IT WORKS

**AV-248-HV** is a moisture-activated reaction. When injected into a concrete structure, the resin will react with moisture and begin to expand. The final product is a very dense, closed cell foam impermeable to water yet **flexible** in nature.

### CATALYSTS

- **AV-249-HV** Cat-HV – catalyst, 25 oz. (0.7 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

### PROPERTIES\*

#### AV-248-HV – UNCURED

Appearance:	Clear liquid
Viscosity:	1200 cP ± 200 @ 72°F (22°C)
Flash Point:	>225°F (>107°C)
Solids:	90 – 98%
Specific Gravity:	1.04 @ 72°F (22°C) ±3%
Density	8.68 lbs./gal (1,040 kg/m <sup>3</sup> ) ±3%

#### AV-248-HV – CURED

Appearance:	Milky white flexible foam
Tensile Strength:	800 – 1200 kPa (116-174 psi)
Elongation:	200 – 250%
Shrinkage:	<4%
Toxicity:	Non-toxic

#### AV-249-HV Cat-HV

Appearance:	Light yellow, clear liquid
Viscosity:	22 cP @ 72°F (22°C)
Flash Point:	>255°F (>124°C)

\*Laboratory Results

### MIX PROCEDURE

Typically, one container of **AV-249-HV** Cat-HV is used per 5-gallon container of **AV-248-HV** Flexseal HV. Depending on the desired reaction time, **AV-249-HV** 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 50 oz. (1.5 L) of **AV-249-HV** Cat-HV per 5-gallon container of the **AV-248-HV** Flexseal HV resin. Do not use open flame as a heat source. Excess amounts of **AV-249-HV** Cat-HV may adversely affect performance. Because catalyzed resin will react to moisture from the air, use product soon after mixing for best results.

### 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.

### 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 download at [avantigrout.com](http://avantigrout.com).

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