

AV-560 Geo-Lok™

Hydrophobic Polyurethane Grout | Part A and Part B

Description

AV-560 Geo-Lok™ is a two-component hydrophobic urethane resin designed to consolidate rock and to permeate and stabilize various types of rock/soil. The uncured two-component resin has a low viscosity and is mixed at a 1:1 ratio by volume. The mixed resin will cure into early high-strength dense polyurethane, unaffected by mild corrosive environments and microorganisms.

Applications

- Consolidating rock
- Soil nails
- Rock anchoring
- Permeation grouting of various rocks/soils
- Rock fractures

Features & Benefits

- Solvent-free system
- Early high strength
- Withstands wet/dry cycles
- Low viscosity
- Multiple grouting techniques including Probe Grouting and Tube-a-Manchette Grouting

How AV-560 Works

AV-560 is a two-component hydrophobic polyurethane resin that must be mixed at a ratio of 1:1 by volume. The resin will react with moisture or without moisture present in the substrate, to form a resilient seal/binder accomplished by three mechanisms: first the resin seeks out the space and pores of the soil/rock and adheres to the fracture's surface. Second, if water or moisture is present, the resin/water reaction begins to expand forming a tight compressive seal in the confined soil/rock space and third the network of compressed grout material within all the rock fractures, establishes a mechanical lock. NOTE: Although AV-560 does not require moisture to be activated, it will react with any water/moisture present in the substrate to form an expanding foam. The resulting foam will have a lower final cure strength and density.

Packaging – product is packaged by net weight

- Jug – Part A: 10.5 lbs. (4.8 kg), Part B: 8.6 lbs. (3.9 kg)
- Pail – Part A: 50 lbs. (22.7 kg), Part B: 41 lbs. (18.6 kg)
- Drum – Part A: 551 lbs. (250 kg), Part B: 456 lbs. (207 kg)

Physical Properties*

UNCURED AV-560 PART A	
Appearance	Amber liquid
Corrosiveness	Non-Corrosive
Viscosity (water=1)	200 cP ± 5 @ 68°F (20°C)
Flash Point	C.O.C. 288°F (142°C)
Solids	100%
Specific Gravity (water=1)	1.25 @ 72°F (22°C) ± 3%
Density	10.43 lbs./gal ± 3% 1,250 kg/m³ ± 3%
UNCURED AV-560 PART B	
Appearance	Clear liquid
Corrosiveness	Non-Corrosive
Viscosity (water=1)	400 cP ± 5 @ 68°F (20°C)
Solids	100%
Specific Gravity (water=1)	1.03 @ 72°F (22°C) ± 3%



Density	8.63 lbs./gal $\pm$ 3% 1,034 kg/m ³ $\pm$ 3%
CURED AV-560	
Tensile Strength	7,605 psi (52.43 MPa)
Elongation @ Break	3.45%
Compressive Strength	13,980 psi (96.39 MPa)
Density	20-70 pcf (varies with moisture content in the substrate)
Hardness Shore D	> 80
Toxicity	Non-toxic

* Laboratory results

Mix Guidelines

Gently shake or stir container(s) before using. Typically, one container of AV-560 Part A and one container of AV-560 Part B is used. The preferred mix procedure for AV-560 is the use of a two-component pump with static mixer at the end at a ratio of 1:1 by volume. No water is required for the reaction.

Performance

For the best results, use AV-560 between 60°F – 90°F (16°C – 32°C). Flush equipment with AV-208 Technical Grade Acetone™ before and after use to remove moisture and clean equipment. Performance will be influenced by site conditions. If site temperatures are low, use a heat source to warm to ~72°F (22°C). Do not use open flame as a heat source. At temperatures of 45°F (7°C), the viscosity of the product significantly increases, making the miscibility of the Part A and B more difficult.

Cleaning

Do not use water to clean equipment. AV-560 can be water activated and will setup or cure in your hoses and equipment. Flush with AV-284 Pump Wash™ to remove uncured resin in hoses and equipment. Purge equipment and hoses with AV-208 Technical Grade Acetone™ before use to remove any remaining AV-284 and moisture.

- AV-208 Technical Grade Acetone™ – removes moisture from equipment (see Performance section)
- AV-222 Cleaner™ – removes cured resin from equipment
- AV-284 Pump Wash™ – removes uncured resin from pump hose

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. Storage of opened/partial containers at the lower range of the recommended storage temperature is not advised as moisture in the air above a partial container might condensate and might cause the grout to premature gel in the container.

Safety

Always use OSHA-approved personal protective equipment (PPE). Refer to the SDS for complete safety precautions. The Safety Data Sheets and Mixing Guidelines are available 24/7 at avantigrout.com.

Shipping – Motor and Air Freight available

- Not regulated under US DOT Regulations

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