

AV-290 Fast Set™

Hydrophobic Polyurethane Grout | Part A and Part B

Description

AV-290 Fast Set™ is a mid-range viscosity, dual component, hydrophobic MDI-based polyurethane resin designed to rapidly fill large voids on the exterior of below grade structures where high waterflow is present. When AV-290 Fast Set is used to slow down high waterflows, it should not be used as a stand-alone solution but in conjunction with any of Avanti's injection resins. AV-290 Fast Set is free rise expanding up to 2,600%, the fast-setting AV-290 cures rigid, impermeable and closed-cell and can withstand wet/dry cycles.

Applications

- Rapidly fills large voids below-grade
- Pipe and tank abandonments
- Stops high flows in below-grade structures (not a stand-alone solution)

Features & Benefits

- No water needed for reaction
- Reacts within seconds and cures rigid
- Free rise expands 1,500% – 2,600%
- Withstands wet/dry cycles
- Non-toxic
- Multiple grouting techniques probe and curtain grouting, and pressure injection

Required Products

- AV-290 Fast Set™ Part A
- AV-290 Fast Set™ Part B

How AV-290 Works

The two components of AV-290 (Part A and Part B) are mixed via static mixer at the point of injection and quickly produce a very rigid grout. AV-290 does not require any water to react and is injected at a 1:1 Part A to Part B ratio.

Packaging – product is packaged by net weight unless otherwise noted

- Dual Chamber Cartridge (Qty: 12) – Part A: 4.2 fl. oz. (126 ml), Part B: 4.2 fl. oz. (126 ml)
- Dual Cartridge (Qty: 6) – Part A: 10.9 fl. oz. (325 ml), Part B: 10.9 fl. oz. (325 ml)
- Pail – Part A: 47 lbs. (21.3 kg), Part B: 40 lbs. (18.1 kg)
- Drum – Part A: 522 lbs. (236.8 kg), Part B: 440 lbs. (199.6 kg)

Physical Properties*

UNCURED AV-290 PART A		
Appearance	Amber liquid	
Viscosity (water=1)	200 cP @ 72°F (22°C) ±10%	ASTM D-4889
Flash Point	>200°F (>93°C)	
Specific Gravity (water=1)	1.250 @ 72°F (22°C) ± 3%	
Density	10.43 lbs./gal (1.250 kg/L) ± 3%	
UNCURED AV-290 PART B		
Appearance	Pale Yellow liquid	
Viscosity (water=1)	600 cP @ 72°F (22°C) ±10%	
Flash Point	>200°F (>93°C)	
Specific Gravity (water=1)	1.041 @ 72°F (22°C) ± 3%	
Density	8.69 lbs./gal. (1.041 kg/L) ± 3%	
CURED AV-290		
Density	1.5 lbs./ft³ (free rise), 2.5 lbs./ft³ (confined)	
Compressive Strength (free rise)	20.2 psi	

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Appearance	Pale yellow, very rigid
Cure Time	40 seconds
Toxicity	Non-toxic

* Laboratory results.

Mix Guidelines

Gently shake or stir container(s) before using. Avanti's static mixers are recommended when using AV-290 via cartridge or pump system. Do not mix components in any unapproved container. AV-290 is injected at a 1:1 Part A to Part B ratio. No water is required for the reaction. Caution: The reaction of Part A with Part B is exotherm. When using AV-290 as abandonment fill in large quantities, work in small lifts to allow the cured foam to cool off before placing another on top.

Performance

For the best results, use AV-290 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 is significantly increased, making the miscibility of Part A and B more difficult.

Cleaning

Do not use water to clean 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. Part A 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

Notice

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