



# AVANTI

Stop leaks. Stabilize soil.  
Control groundwater. **Permanently.**

MUNICIPAL • INDUSTRIAL • GEOTECHNICAL

## PRODUCT CATALOG

- ACRYLAMIDE AND ACRYLICS
- POLYURETHANES
- EPOXIES
- CEMENTS
- AUXILIARY PRODUCTS
- PUMPS

[avantigrout.com](http://avantigrout.com)

# THE AVANTI PHILOSOPHY

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Avanti has been an American owned and operated producer of high-quality injection grouts since 1978. Our product line includes acrylamide, acrylics, polyurethanes, epoxies, Ultrafine cements from US Grout, and more. Avanti began with only one product — AV-100® Chemical Grout — used primarily to seal leaking collection systems. Avanti now offers over 25 different injection grouts used world-wide for municipal, industrial, commercial, and geotechnical applications to stop water infiltration, stabilize soil and rock, and control groundwater permanently.

## Vision · Mission · Values

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**Vision:** Restoring public safety and confidence in our aging infrastructure is the cause which drives Avanti to educate and train public and private property owners, lead the charge of proactive repair and maintenance, and grow the safe use of injection grouts.

**Mission:** To provide sustainable solutions for safer work environments and healthier communities everywhere. We pride ourselves in the level of education, training, and support services we offer that are unmatched in the industry. One of the most important strategies we follow is education — the way forward.

**Values:** Our core values define who we are — as a whole and as individuals — and how we serve the industry. These are the guiding principles governing day-to-day interaction internally and with our partners, customers, and prospects.

- **Collaboration** - Work together; externally with customers, partners, and prospects, and internally with one another
- **Enthusiasm** - Serve others in product, service, and attitude
- **Growth** - Improve every day and commit personally and professionally
- **Integrity** - Do the right thing, do what you say you will do, and never give up



# ACRYLICS

Acrylamide, Acrylics  
Acrylates, Catalysts, &  
Additives

Avanti's acrylic gels are two-component systems used to stop leaks and stabilize soils of underground applications including collection system components, tunnels, mines, dams, soil erosion control, basements, and various other below-grade structures. Our acrylics are injected using a stainless steel, dual-component pump from two containers at a 1:1 ratio. Acrylics use a required activator and initiator. Mix Guidelines for all acrylics are available at [avantigrout.com](http://avantigrout.com).

## AV-100® Chemical Grout (Acrylamide)

Avanti's flagship product! With over 50 years of successful documented use, AV-100 is used to stop water infiltration into underground structures by creating a durable, long-lasting water barrier on the exterior of the structure and provides excellent soil stabilization. AV-100 is an ultra-low viscosity (1-2 cP), chemically reactive gel that can travel anywhere water can and cures in controllable set times (seconds to hours). Additives are available to modify the reactions and cured gel characteristics.

## Features/Benefits

- NSF/ANSI/CAN 61 - Drinking Water System Components
- 50+ year service life
- Third party longevity and humidity testing
- Mix design and concentration can be altered
- Greater longevity compared to silicates
- Available in granular and liquid form

## AV-118® Duriflex

AV-118 is used as an alternative to AV-100 to stop water infiltration into underground structures by creating a durable, long-lasting water barrier on the exterior of the structure and provides excellent soil stabilization. AV-118 is an ultra-low viscosity (1-2 cP), chemically reactive gel that can travel anywhere water can and cures in controllable set times (seconds to hours).

- Contains less acrylamide than AV-100
- Mix design and concentration can be altered
- Greater longevity compared to silicates

## AV-150 Acrylate Gel™

AV-150 is a high solids, fast setting acrylate solution used for crack injection of below-grade structures, curtain grouting, soil stabilization and other types of permeation grouting applications. AV-150 is a low viscosity (15-20 cP), chemically reactive gel that cures in controllable set times from 20 seconds up to ±5 minutes and creates an effective, long-lasting water barrier while providing superb soil stabilization.

- NSF/ANSI/CAN 61 - Drinking Water System Components
- High solids content grout
- Greater longevity compared to silicates
- Improved chemical resistance in harsher environments

## AV-160® SuperGel

AV-160 is an acrylamide-free acrylate used to stop water infiltration into underground structures by creating a durable, long-lasting water barrier on the exterior of the structure and provides excellent soil stabilization. AV-160 is an ultra-low viscosity (1-2 cP), chemically reactive gel that can travel anywhere water can and cures in controllable set times (seconds to hours).

- Acrylamide-free
- Mix design and concentration can be altered
- Greater longevity compared to silicates

## AV-170 FlexGe™

AV-170 is an elastic acrylate used to penetrate and seal hairline cracks, pores, honeycombed concrete, and joints in areas where movement/vibrations may occur. AV-170 is a low viscosity (15-20 cP), chemically reactive gel that cures in controllable set times from 15 seconds up to ±8 minutes and creates an adhesive, elastic gel.

- Highly elastic
- Non-toxic
- Greater longevity compared to silicates

## • Acrylic Catalysts - Required

Required for use with Avanti's acrylic gels. See Mixing Guidelines at [avantigrout.com](http://avantigrout.com) for further information.

### AV-101® Catalyst T+

AV-101 Catalyst T+ or Triethanolamine (often referred to as Cat T or TEA) is a colorless liquid used as an activator for the reaction of all Avanti's acrylic gel grouts. AV-101 reduces its freezing point to -3°F (-16°C) and enhances the final gel. AV-101 is added to Tank A - Grout side.

### AV-102® Catalyst AP

AV-102 Catalyst AP or Ammonium Persulfate is a white crystalline solid used as the initiator for the polymerization reaction of acrylic monomers - usually with AV-100. AV-102 is a strong oxidizing material which decomposes over time. AV-102 is added to Tank B - Catalyst side.

### AV-103® Catalyst SP

AV-103 Catalyst SP or Sodium Persulfate is a white crystalline solid used as the initiator for the polymerization reaction of acrylic monomers. AV-103 is a strong oxidizing material which decomposes over time. AV-103 is added to Tank B - Catalyst side.

## • Additives - Optional

Optional additives for use with Avanti's acrylic gels. See Mixing Guidelines at [avantigrout.com](http://avantigrout.com) for further information.

### AV-105 Gel Guard™ (Ethylene glycol)

Designed to reduce the freezing point of Avanti's acrylics in cold weather applications.

### AV-257 Icoset™ (Latex)

Gel strengthening or adhesion modifying agent for use with Avanti's acrylics. Provides cured material with improved hydrostatic pressure resistance, better low-temperature plasticity, and improved adhesion.

### Potassium Ferricyanide (KFe)

Chemical compound used in small quantities to extend gel times for Avanti's acrylics. Only small quantities are required for effective results.

### Tracer Dyes

Used for leak detection, tracing grout paths, and assists in monitoring permeation. Available in multiple colors and in tab or powder form.

# HYDROPHILIC URETHANES

Avanti produces a variety of different hydrophilic polyurethane grouts for soil stabilization and water control applications. Hydrophilic grouts — “water loving” — require moisture to react. These grouts absorb water during cure and must remain in the presence of a moist environment.

## AV-202® Multigrout (AV-202-NTP Multigrout™)

AV-202 Multigrout is a single component, moisture-activated polyurethane resin designed for sealing active water leaks in large cracks or joints in concrete structures or where high-water flow is present and a high viscosity grout is needed (3,200-6,000 cP). AV-202 is versatile in that it cures tough and impermeable with superb adhesive qualities at a 1:1 water to resin ratio (preferred), or a gel at a 10:1 water to resin ratio. AV-202 is frequently used in conjunction with Oakum or Resin Rod when a backer material is needed.

### Features/Benefits

- NSF/ANSI/CAN 61 - Drinking Water System Components
- Free rise expansion: 400-600%
- 100% solids
- Can accept up to 10X its volume in water
- Great for moving cracks and joints
- May be used in underwater applications
- Available in cartridges
- Available as non-potable version (AV-202-NTP)

## AV-202-LV Multigrout LV™

AV-202-LV Multigrout is the low viscosity (LV) version of AV-202 Multigrout. AV-202-LV is a single component, moisture-activated polyurethane resin designed for applications where flexibility is desired, but a lower viscosity grout is needed to permeate tight cracks or joints (650-800 cP). AV-202-LV cures tough and impermeable with superb adhesive qualities at a 1:1 water to resin ratio (preferred), or a gel at a 8:1 water to resin ratio. AV-202-LV is frequently used in conjunction with Oakum or Resin Rod when a backer material is needed.

- Free rise expansion: 400-600%
- 100% solids
- Can accept up to 8X its volume in water
- Great for moving cracks and joints
- Available in cartridges

## AV-315 Microfoam™

AV-315 Microfoam is a single component, moisture-activated polyurethane resin designed for sealing active water leaks in very fine concrete cracks or joints in below-grade structures such as utility vaults, tanks, tunnels, and basements. AV-315 has an extremely low viscosity (50-100 cP) and cures flexible, dense, impermeable and closed-cell.

- NSF/ANSI/CAN 61 - Drinking Water System Components
- Free rise expansion: 300-600%
- Low viscosity for excellent penetration

## AV-330 Safeguard™ (AV-330-NTP Safeguard NTP)™

AV-330 Safeguard is a single component, moisture-activated polyurethane resin designed for sealing active leaks in cracks or joints in below grade structures. Its mid-range viscosity (350-750 cP) helps it to permeate well in various cracks and joints. AV-330 is a great option where poor ventilation occurs in confined spaces. It cures tough, flexible, and closed cell. AV-330 is the non-acetone version of AV-333 Injectaflex (discontinued).

- NSF/ANSI/CAN 61 - Drinking Water System Components
- 100% MDI-based
- Free rise expansion: 400-600%
- Available as non-potable version (AV-330-NTP)

## AV-254 Gelseal™

AV-254 Gelseal (urethane gel) is a pre-polymer resin designed to stop water infiltration in below-grade structures and stabilize soils. AV-254 has excellent permeation properties when injected at an 8:1 grout to water ratio (preferred). It quickly permeates the soil due to its low viscosity (175-450 cP, 10 cP in solution) and cures to create a strong gel/soil matrix.

- Five gallons of material will make up to 45 gallons of active grout solution
- Produces a strong gel/soil matrix
- Solvent-free, non-toxic
- AV-257 (Latex) available as optional additive





# HYDROPHOBIC URETHANES

Avanti produces a variety of different hydrophobic polyurethane grouts for soil stabilization and water control applications. Hydrophobic grouts - "water fearing" - have little affinity for water. These grouts need very little water to react and cure, but generally require the use of a catalyst (accelerator).

## AV-248 Flexseal™ with AV-249 Flexseal AC™

AV-248 Flexseal is a moisture activated polyurethane resin whose chemical reaction is catalyzed by mixing AV-249 Flexseal AC with AV-248. Injected as a single component, AV-248 is designed to seal active and potential water leaks in various cracks in above or below grade concrete structures where flexibility is needed due to shifting but is susceptible to wet/dry cycles. AV-248 cures resilient, impermeable, and flexible, and is required to be injected into a confined space to form a tight, high density compression seal. AV-248 has mid-range viscosity of 550-830 cP.

### Features/Benefits

- Free rise expansion: 400-600%
- Must be injected into confined space, cures flexible and closed cell under confined conditions
- Controllable reaction times by adjusting AV-249 volume
- Withstands wet/dry cycles
- Unique hydrophobic that cures flexible and closed cell

## AV-248-LV Flexseal LV™ with AV-249-LV Flexseal LV AC™

AV-248-LV Flexseal LV is a moisture activated polyurethane resin whose chemical reaction is catalyzed by mixing AV-249-LV Flexseal LV AC with AV-248-LV. Injected as a single component, AV-248-LV is designed to seal active and potential water leaks in fine cracks in above or below grade concrete structures where flexibility is needed due to shifting but is susceptible to wet/dry cycles. AV-248-LV cures resilient, impermeable, and flexible, and is required to be injected into a confined space to form a tight, high density compression seal. AV-248-LV has low viscosity of 150-250 cP to allow for penetration in smaller cracks.

- NSF/ANSI/CAN 61 - Drinking Water System Components
- Free rise expansion: 400-1,000%
- Must be injected into confined space, cures flexible and closed cell under confined conditions
- Controllable reaction times by adjusting AV-249-LV volume
- Withstands wet/dry cycles
- Unique hydrophobic that cures flexible and closed cell
- Available in dual-component cartridges

## AV-258-MV PermaFlex™ with AV-259-MV PermaFlex AC™

AV-258-MV PermaFlex is a moisture activated polyurethane resin whose chemical reaction is catalyzed by mixing AV-259-MV PermaFlex AC with AV-258-MV. Injected as a single component, AV-258-MV is designed to seal active and potential water leaks in various cracks in above or below grade concrete structures where flexibility is needed due to shifting but is susceptible to wet/dry cycles. AV-258-MV cures resilient, impermeable, and flexible, and is required to be injected into a confined space to form a tight, high density compression seal. AV-258-MV has mid-range viscosity of 450-650 cP.

- Free rise expansion: 700-1,200%
- Must be injected into confined space, cures flexible and closed cell under confined conditions
- Controllable reaction times by adjusting AV-259-MV volume
- Withstands wet/dry cycles
- Unique hydrophobic that cures flexible and closed cell

## AV-260 Fusion Grout™ with AV-261 Fusion AC™

AV-260 Fusion Grout is a moisture activated polyurethane resin whose chemical reaction is catalyzed by mixing AV-261 Fusion AC with AV-260. Injected as a single component, AV-260 is designed to seal active and potential water leaks in various cracks in above or below-grade concrete structures where flexibility is needed due to shifting but is susceptible to wet/dry cycles. AV-260 cures resilient, impermeable, and flexible, and is required to be injected into a confined space to form a tight, high density compression seal. AV-260 has mid-range viscosity of 300-500 cP.

- Free rise expansion: 1,500-2,000%
- Must be injected into confined space, cures flexible and closed cell under confined conditions
- Controllable reaction times by adjusting AV-261 volume
- Withstands wet/dry cycles

## AV-275 Soilgrout™ with AV-276 Soilcat™

AV-275 Soilgrout is a low viscosity, moisture activated polyurethane resin whose chemical reaction is catalyzed by mixing AV-276 Soilcat with AV-275. Injected as a single component, AV-275 is designed to react quickly to bind together and waterproof loose granular soils, stop high water flows, and fill voids/stabilize soils around below-grade structures. AV-275 forms a dense, impermeable, rigid soil/grout matrix that withstands wet/dry cycles and has excellent permeation properties due to its low viscosity (30-55 cP).

- NSF/ANSI/CAN 61 - Drinking Water System Components
- Free rise expansion: up to 3,000%
- Can achieve high compression strengths
- Controllable reaction times by adjusting AV-276 volume
- Withstands wet/dry cycles
- Available in dual-component cartridges

## AV-278 Low Vis Hydro™ with AV-279 Low Vis Accel™

AV-278 Low Vis Hydro is a low viscosity, moisture activated polyurethane resin whose chemical reaction is catalyzed by mixing AV-279 Low Vis Accel with AV-278. Injected as a single component, AV-278 is designed with soil permeation in mind – it has low viscosity (25-100 cP) for soil penetration and high expansion to fill voids around below-grade structures, stop active or potential water leaks, and stabilize soils. AV-278 forms a dense, impermeable, semi-rigid soil/grout matrix and withstands wet/dry cycles.

- NSF/ANSI/CAN 61 - Drinking Water System Components
- Free rise expansion: 4,000-6,000%
- Excellent permeation abilities
- Withstands wet/dry cycles
- Controllable reaction times by adjusting AV-279 volume

## AV-290 Fast-Set™

AV-290 Fast-Set is a mid-range viscosity, two-component hydrophobic polyurethane resin designed to rapidly fill large voids on the exterior of below grade structures where high-water flow is present. AV-290 (Part A and B) cures within seconds to form a rigid, impermeable, and closed-cell foam that can withstand wet/dry cycles. AV-290 - Part A and Part B - are mixed at a 1:1 ratio with a static mixer at the point of injection. AV-290 Part A and Part B have mid-range viscosities of 200-600 cP.

- Free rise expansion: 1,500-2,600%
- Requires no water for reaction
- Reacts in seconds
- Withstands wet/dry cycles
- Available in dual-chamber and dual-component cartridges

# SOIL STRENGTHENERS

Avanti's Soil Strengtheners are innovative solutions engineered to enhance the structural integrity and load-bearing capacity of various soil types, including permeable soil and rock formations. Their unique design permeates and stabilizes soil, increasing cohesion between soil particles and filling void areas.

## AV-550 Soil Strengthener™ with AV-551 Soil Strength Cat™

AV-550 Soil Strengthener is a hydrophobic polyurethane resin designed with a low viscosity ( $\pm 25$  cP) to permeate and stabilize various types of soil to increase the load bearing capacity of permeable soil by greatly increasing the cohesion between soil particles and by filling void areas in the soil. The uncured resin reacts when it encounters water. When the reaction occurs, a slight expansion of the resin is noticeable, and the material quickly cures to an open cell foam which is impervious to corrosive environments and microorganisms.

## Features/Benefits

- Free rise expansion: Slight
- Controllable reaction time by adjusting AV-551 Soil Strengthener Cat
- Withstands wet/dry cycles

## AV-560 Geo-Lok™

AV-560 Geo-Lok is a two-component, hydrophobic polyurethane resin designed for consolidating rock, rock nailing, and permeating and stabilizing various types of rock fractures and soils. The uncured two-component resins have a low viscosity (Part A: 200, Part B: 400 cP) and are mixed at a 1:1 ratio by volume. The mixed resin will cure into early high-strength, dense polyurethane that is unaffected by mild corrosive environments and microorganisms.

- Early high-strength
- Withstands wet/dry cycles
- Used to consolidate rock, rock anchoring, soil nails and permeation grouting of various rocks/soils

# EPOXIES

Epoxy is an extremely durable material that is administered in liquid form and cures to a temperature-resistant, high-clarity solid. The strength of cured epoxy resin, coupled with its quick curing speed makes it ideal for protective coating and filler in a wide range of applications.

## AV-502 Injectable Bonding Epoxy™ Series

The AV-502 Injectable Bonding Epoxy Series is designed for structural concrete repair by crack injection, gravity feed or patching. AV-502 can be used as a liquid binder for sand, aggregate or other mineral filler to patch or resurface damaged concrete slabs. AV-502 may be used to repair masonry, wood, and other rigid construction materials. Three viscosity versions are available: (LV/low) 550 cP, (MV/mid) 3,000 cP, and (HV/high) 7,800 cP. The AV-502 series meets or exceeds the requirements of ASTM C 881 or AASHTO M-235: (LV) Types I and IV, Grade 1, Class C; (MV) Types I and IV, Grade 2, Class C; (HV) Type I, Grade 2, Class C.

- User friendly mix ratio of 4:1 by volume
- 100% solids
- Butyl Glycidyl Ether (BGE)\* free
- Long working time
- Excellent adhesion
- High hardness
- Meets or exceeds requirements of ASTM C 881 or AASHTO M-235

## AV-522 Crack Sealing Paste™

AV-522 is a two component, non-sag structural epoxy paste designed to offer exceptional mechanical strength in anchoring/bonding applications. Due to its high bond strength to concrete, it is ideal to use for anchoring threaded rod or rebar dowels. The consistency is good for capping (sealing) before crack injection or general surface repairs. AV-522 meets or exceeds the requirements of ASTM C 881 (Types I, II, IV, & V Grade 3, Class B & C).

- User friendly mix ratio of 1:1 by volume
- 100% solids
- Solvent free
- Butyl Glycidyl Ether (BGE)\* free
- High strength/modulus/hardness
- Easy to apply, non-sag paste with excellent adhesion

## AV-580 Joint Filler Epoxy™

AV-580 is a two component, non-shrink structural epoxy specifically designed for filling sawcut control joints and contraction joints in concrete. AV-580 is a thermosetting epoxy system that cures to a semi-rigid resiliency which supports joint edges to prevent edge deterioration and concrete spalling. It bonds tightly to the sides of concrete joints, prevents contaminant and water penetration, and delivers high wear resistance and durability. AV-580 can be gravity fed or with manual or power dispensing equipment. It has a high mixed viscosity (3,200 cP).

- User friendly mix ratio 1:1 by volume
- Use only on Type 1, non-moving joints
- 100% solids, VOC free
- Fast flush shave time in as little as 3.5-4.0 hours
- Excellent substrate adhesion
- Use only on fully cured concrete (min. 30 day old)

## AV-590 Joint Filler Polyurea™

AV-590 is a two component, rapid setting non-shrink polyurea system specifically designed for filling sawcut control joints and contraction joints in concrete. 100% solids, VOC free, rapid setting, polyurea system that cures to a semi-rigid resiliency which supports joint edges to prevent edge deterioration and concrete spalling. It bonds tightly to the sides of concrete joints, prevents contaminant and water penetration, and delivers high wear resistance and durability. It has a high mixed viscosity (2,000 cP).

- User friendly mix ratio 1:1 by volume
- Use only on Type 1, non-moving joints
- 100% solids, VOC free
- Fast flush shave time in as little as 15 minutes
- Excellent substrate adhesion
- Colorfast, resisting fading and discoloration
- Moisture tolerant
- Use only on fully cured concrete (min. 30 day old)

# CEMENTITIOUS GROUTS



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# AVANTI

For over 20 years, US Grout and Avanti have partnered to bring you Ultrafine cementitious grout - a permanent, deeply-penetrating, densely-curing cementitious grout for sealing fractures in rock, controlling ground water, and stabilizing weak soils. US Grout produces the only American-made Ultrafine cementitious grout available in the world and has a stable North American supply. As the sole worldwide distributor for US Grout products, Avanti provides customer service, project advice, material estimates, and the caliber of world-class technical support that comes only from over 45 years of experience.

## Ultrafine SD Cementitious Grout

Ultrafine SD is composed of a finely ground mixture of Portland cement, pumice, and dispersant. It has an average particle size of 3-4 microns (60-70 microns in conventional cements). SD is formulated with superplasticizer for a fool-proof system with zero bleed and very high compressive strengths. Ultrafine SD must be mixed in a high shear colloidal mixer. SD is used to stabilize weak soil/rock, sea seepage in mines, dams, and tunnels, low permeability curtain grouting, hazardous waste containment, and oil well squeeze cementing. The Water to Dry Cement ratio is 0.8 to 1.0 by weight. *Never blend Ultrafine SD with USG Super Polycarboxylate.*

## Features/Benefits

- NSF/ANSI/CAN 61 - Drinking Water System Components
- Lower permeability compared to ordinary Portland cement
- Stable North American supply
- Small particle size penetrates smaller fractures and finer soils
- Pre-blended with superplasticizer
- USG Super Polynaphthalene should only be used with Ultrafine SD

## Ultrafine VX Cementitious Grout

Ultrafine VX is composed of a finely ground mixture of Portland cement, pumice, and dispersant. It has an average particle size of 3-4 microns (60-70 microns in conventional cements). VX is formulated with a polycarboxylate-based superplasticizer for minimal bleed and high compressive strengths in soil permeation applications - no additives required. Ultrafine VX must be mixed in a high shear colloidal mixer. VX is used to stabilize weak soil/rock, sea seepage in mines, dams, and tunnels, low permeability curtain grouting, hazardous waste containment, and oil well squeeze cementing. The Water to Dry Cement ratio is 0.8 to 1.0 by weight. *Never blend Ultrafine VX with USG Super Polynaphthalene.*

- Lower permeability compared to ordinary Portland cement
- Stable North American supply
- Small particle size penetrates smaller fractures and finer soils
- USG Super Polycarboxylate available as additional but optional additive
- USG Super Polycarboxylate should only be used with Ultrafine VX

## USG Super Polynaphthalene

USG Super Polynaphthalene is Sodium Naphthalene Sulfonate - a major ingredient in the formulation of various superplasticizer admixtures. It helps disperse cement particles and break agglomerates, thereby improving the fluidity of concrete. It can be used to improve the rheological and mechanical properties of concrete (i.e.: workability, compressive strength, and bending modulus of elasticity). USG Super Polynaphthalene is premixed in Ultrafine SD, however additional Polynaphthalene can be used in the Ultrafine SD mixture allowing for the successful injection of low water/cement ratio mixes with high compressive strengths.

- USG Super Polynaphthalene should only be used with Ultrafine SD
- Self-leveling
- High resistance to initial compression
- Good workability, high performance
- Low water/cement ratio
- Low carbon footprint

## USG Super Polycarboxylate

USG Super Polycarboxylate is a dry powder polycarboxylate-based superplasticizer that improves flow characteristics of Ultrafine VX, allowing for the successful injection of low water/cement ratio mixes with high compressive strengths. USG Super Polycarboxylate should be pre-mixed with the measured amount of water prior to adding powdered grout.

- USG Super Polycarboxylate should only be used with Ultrafine VX
- Self-leveling
- High resistance to initial compression
- Good workability, high performance
- Low water/cement ratio (<0.22)
- Low carbon footprint

*Unique among all cementitious grouts produced in the world today, US Grouts are made with the same pumice-based pozzolan the Romans used over 2,000 years ago. As proven by the Pantheon and many ancient Roman structures standing strong after two millennia, US Grout's patented pumice-pozzolan based cement provides unequalled longevity. Developed by the U.S. Department of Energy, the aptly named US Grout produces Ultrafine products equal or superior to any ultrafine grout available in the marketplace.*



# INJECTION ACCESSORIES

Avanti offers a range of standard grout injection products and accessories such as injectors/packers, injection guns, and Oakum available at all times. If you need customized items such as hoses, manifolds, static mixers, strainers, or other products, call our office at 800.877.2570.

## Injectors and Packers



The **EZ-1** injector is the most cost-effective production port available due to its disposable composite plastic designed for ease and efficiency. The zerk fitting is 0.12" dia. port and 5/8" OD for lower flow at high pressures. This port is the best seller and most often specified for crack injection work.



The **EZ-4** injector has a steel ball one-way valve, 0.28" dia. port and 5/8" OD. The disposal composite plastic material is designed with a button head coupler connection.



The **3" Mechanical Injectors/Packers** are available in reusable 1/2" and 5/8" OD and designed for 45-degree and straight-on injection of cracks and expansion joints. Both injectors have 0.375" dia. ports for injecting large volumes of material and are tolerant of pressure fluctuations. These injectors may be used with an extension. Rubber sleeve color may differ.



The **EZ-3P** injector has 0.28" dia. port and 5/8" OD which allows for greater flow at high pressures. The metal button head, mechanically seated fitting adds safety. An excellent choice for tight cracks where pressures may exceed 1,000 psi.



The **3/8" Bang-In** injector has 0.12" dia. port and 3/8" OD which allows for quick, low-pressure applications of urethane and epoxy resins. The 3/8" has a separate zerk fitting, is easily disposable, and the lowest cost injector available.



The **4" Extended Mechanical Injectors/Packers** are available in reusable 1/2" and 5/8" OD and designed for 45-degree and straight-on injection of cracks and expansion joints. Both injectors have 0.375" dia. ports for injecting large volumes of material and are tolerant of pressure fluctuations. These injectors may be used with an extension. Rubber sleeve color may differ.

## Injection Accessories



The **Resin Injection Gun** is used with single-component pumping systems. The stainless-steel gauge attached to the gun reads pressures while injecting into the crack. The tip is fitted with a grease fitting coupler unless using with a Button Head Coupler.



The **Wall Spear Assembly** is a reusable accessory made of carbon-steel or stainless-steel, and is used in conjunction with the "F" Assembly as a resin injector for acrylics.



The **Coupler** connects to the grease fitting on the Resin Injection Gun which allows grout to flow through. Attaches to Avanti's EZ-1, all Mechanical Injectors/Packers, or 3/8" Bang-In Injectors. \*Injector not included.



The **Injector Extension** is a 4" long extension that can be used with Mechanical Injectors/Packers (1/2" & 5/8").



The **Injection Hose Kit** is an injectable waterstop for permanent sealing of cold and construction joints in concrete, pipe penetrations, and voids between slurry walls/slabs. The tubing is designed to keep the concrete out of the grout delivery system during pour of a new wall but allows for grout injection after the pour cures and settles. AV-248-LV Flexseal or AV-258-MV PermaFlex are the recommended injection grouts to use with the Injection Hose Kit.



**AV-219 Fibrotite (Oakum Rope)** is a fibrous jute material free of oils/tars used in areas a carrier is needed to keep grout in place in instances where heavy water flow is present, vertical retaining wall joints, and overhead cracks/joints. AV-219 is designed for use with the Expanded Gasket Placement Technique (EGP). Provided in easy-to-handle, pre-cut 2 ft. (0.6 m) sections and (7) 100 ft. large coils.



The **"F" Assembly** is used with two-component pumping systems for injecting acrylic grouts. The "F" Assembly contains a stainless-steel or non-stainless steel assembly with quick connects and two-way shut-off valves.



**Needles** are used to penetrate leaking pipe-to-manhole connections, perform manhole chimney grouting, and are ideal for injecting grout behind cured Expanded Gasket Placement Technique (EGP) applications. The stainless-steel 1/4" needles are available in lengths of 10", 12", 15", 18", 24", and 36".



The **Button Head Coupler** attaches to EZ-3P or EZ-4 injectors to allow grout to flow through. Injectors not included.



The **Moisture-Resistant Hose** is recommended to prevent resin from "setting up" inside lines. Available in 25' and 50' lengths.



**AV-215 Resin Rod** is an open cell foam rod designed for use with Avanti's polyurethane foam grouts via the Expanded Gasket Placement Technique (EGP). Resin Rod is available in multiple diameters ranging from 5/8" to 2" and sections up to 500-ft.



The **Epoxy Surface Ports** are used with the AV-502 Injectible Bonding Epoxy series. Surface ports are commonly used for epoxy injection at relatively low injection pressures. Available in round or corner ports.



# PUMPS & CLEANERS

Avanti is a distributor of pumps and accessories from Graco and WIWA. Below are standard pumps we offer, however additional pump models and customization options are available from the manufacturers. Visit our website or call us at 800.877.2570 for information on our pump options or additional Graco or WIWA pumps.

## Graco Ultra® Max II 495 PC Pro (or similar)



The best choice for professionals looking for superior performance and control in daily use. The new Ultra® Max II 495 PC Pro brings the leading technology and performance of Graco's larger Ultra Max II models into these compact and lightweight systems. Ideal for pumping Avanti's polyurethane grouts.

- ProConnect™
- MaxPower Motor
- Endurance™ Pump
- FastFlush™
- Smart Control 2.5
- East Out™ Pump Filter

Max. gpm (LPM): 0.60 (2.3)  
Max. psi (bar): 3,300 (227)  
Motor HP: 1.2 Brushless DC  
Unit includes: 1/4"x50' BlueMax™ II Airless Hose

## Graco Merkur 1:1 M2K Model 24V880 (or similar)

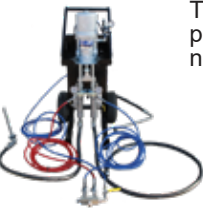


The cart-mounted Merkur 1:1 M2K Model 24V880 is an easy-to-use proportioning system that has all you need in one small package. This fixed ratio machine keeps your mix ratio consistent while only mixing what you use. Ideal for lower volume two-component epoxy, polyurethane, and polyester materials.

- Built with Merkur components for long life
- Easily adjust fluid and air pressure
- Specifically designed to manage split batch polyester materials in 1:1 ratio

Max. Flow Rate gpm: 0.5  
Max. psi (bar): 3,000 psi (206)  
Unit includes: G40 Gun, Standard Mix Manifold

## Graco President® 1:1 Fixed Ratio Stainless Steel



The Graco President® 1:1 Fixed Ratio Stainless Steel Pump is ideal for pumping Avanti's acrylic gel systems. The President pumps high volumes of material and has maximum pressures of 600 psi — more than enough pressure for your grouting needs.

- Graco President® Air Motor
- Portable Cart
- SQ-398-495 Stainless steel mix manifold
- Air monitoring
- Hose Set - Suction and Discharge assembly
- Customizable mix block/"F" Assembly options

Pump cycle rate is dependent on material pressure and discharge orifice size:  
20 cycles/min - 2 gpm  
30 cycles/min - 3 gpm  
40 cycles/min - 4 gpm  
Pressure Ratio: 5:1  
Mix Ratio By Volume: 1:1

## WIWA 2K-Inject 14025 or 25015 1:1 Fixed Ratio Stainless Steel



Highly advanced pneumatic technology for injection and pressure grouting applications with Avanti's acrylic gel systems. The newly developed pneumatic WIWA 2K-Inject 14025 and 25015 not only demonstrates their capability in injection and pressure grouting technology, but with their highly developed equipment technology also professional competence and environmental consciousness.

- High-pressure pump
- Discharge and Inlet Hoses
- Cart frame
- Air driven plural component injection unit
- Optional accessories: adapters, couplings, JIC connections, and mounting kits

### WIWA 2K-Inject 14025

Fixed 1:1 Mix Ratio  
Output per cycle: 80 cm<sup>3</sup>  
Pressure ratio: 25:1  
Max. operating pressure: 2,900 psi (200 bar)  
Max. input air: 116 psi (8 bar)  
Max. fluid delivery: 1.36 gpm @ 60 cpm

### WIWA 2K-Inject 25015

Fixed 1:1 Mix Ratio  
Output per cycle: 144 cm<sup>3</sup>  
Pressure ratio: 15:1  
Max operating pressure: 1,740 psi (120 bar)  
Max. input air: 116 psi (8 bar)  
Max. fluid delivery: 1.50 gpm @ 60 cpm

## Pump Cleaners

### AV-208 Technical Grade Acetone™

Removes all moisture in grouting equipment. It is important to pump AV-208 through grouting equipment — pumps and hoses — prior to grouting as it removes moisture. Many of Avanti's grouts are moisture sensitive; therefore, moisture removal is vital to successful grouting operations.

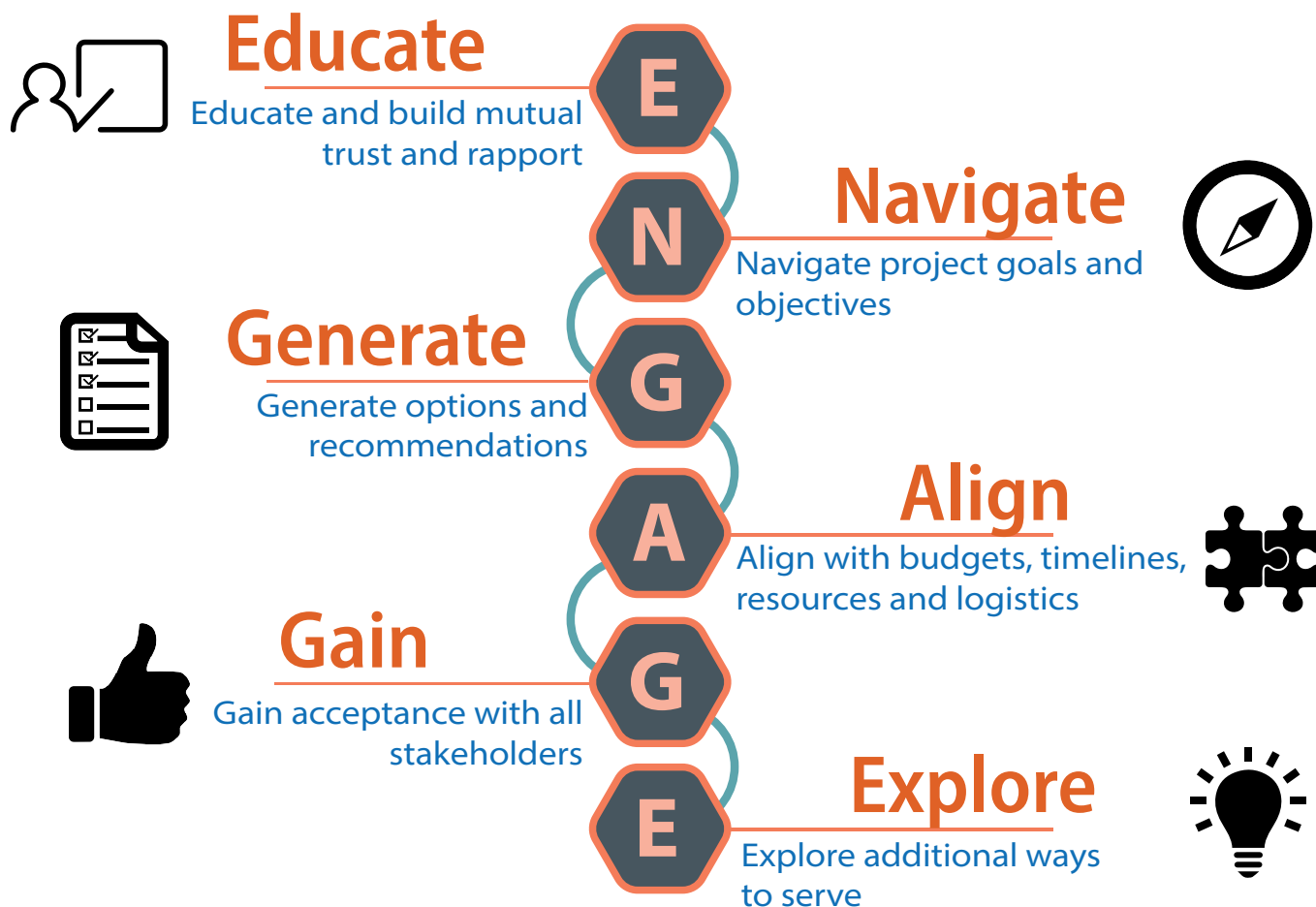
### AV-222 Cleaner™

Dissolves cured polyurethane resin from grouting equipment by disassembling clogged pieces and parts and soaking in AV-222 overnight.

### AV-284 Pump Wash™

Non-flammable, non-drying compound used to remove uncured polyurethane resin from grouting equipment. Once grouting operations are completed and all residual grout is removed from the pumping system using AV-208 Technical Grade Acetone, AV-284 can be introduced to maintain pump. As a side note, the material may be stored in grouting equipment for extended periods when pump is not in use.

Like the elements of Avanti’s injection grouts, we build chemistry with our clients. The formula is proven, the process is consistent, the outcome predictable, and the experience is always one-of-a-kind. ENGAGE the Avanti way.



Our customers and prospects receive a superior level of service, experience, and technical support from our sales and support team that is unmatched in the industry. Avanti supports the growth of the injection grouting industry and the success of our customers by hosting grout schools and onsite training, providing online educational resources, and continuing to research and develop new and existing products.



**AVANTI**

Stop leaks. Stabilize soil.  
Control groundwater.  
Permanently.

**45** INJECTION  
GROUT AUTHORITY