

Mixing Guidelines: AV-150 Acrylate Gel™ IBC Tote (2,420 lbs.) – Standard 50% Concentration

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When properly mixed, (1) 2,420 lb. IBC tote of AV-150 Acrylate Gel will make a 550-gallon (2,082 L) batch of ~50% concentration injectable grout solution. Percentages used below, refer to parts of the chemical per 100 parts of total mixed grout solution. Ingredients are only compatible with stainless steel or plastic.

WHAT YOU WILL NEED:

- (1) 2,420 lb. tote of AV-150 Acrylate Gel
- 98.5 lbs. (10.75 gal.) AV-101 Catalyst T+ (triethanolamine (TEA))
- 98.5 lbs. AV-103 Catalyst SP (sodium persulfate)
- Water (potable water or clean site water)
- Personal Protective Equipment (PPE) in accordance with Avanti's Safety Data Sheet (SDS)
- Optional but encouraged – tracer dye to mixture to track grout travel

MIXING TANK A (Grout Tank) - See Table 1

1. Wear the appropriate PPE in accordance with Avanti's Safety Data Sheets (SDS). Up to date SDS can be found online at avantigrout.com.
2. Pour or pump contents of one tote of AV-150 (2,420 lbs.) into Tank A (grout tank).
3. Add AV-101 Catalyst T+ (98.5 lbs., 10.75 gal.) to Tank A – 42% of total grout solution weight.
4. **DO NOT ADD WATER.**
5. Stir thoroughly.
6. Optional but encouraged – add tracer dye to mixture to track grout travel.

MIXING TANK B (Catalyst Tank) – See Table 1

1. Add AV-103 Catalyst SP (98.5 lbs.) to Tank B (catalyst tank) – 42% of total grout solution weight.
2. Add approximately 275 gal. (1,041 L) of water to Tank B to equal volume of Tank A.
3. Stir until AV-103 is completely dissolved.
4. Optional but encouraged – add tracer dye to mixture to track grout travel.



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Stop leaks. Stabilize soil.
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TANK A	TANK B	
AV-150 Acrylate Gel – 2,420 lbs. AV-101 Cat-T+: 98.5 lbs. (10.75 gal.) *Do not exceed 5% AV-101 Cat T+	AV-103 SP: 98.5 lbs. Water: approx. 275 gal. (1,041 L) *Do not exceed 5% AV-103 SP	~50% AV-150 concentration in solution. Weights approx. 4,925 lbs. (2,235 kg)
275 gal. (1,041 L)	275 gal. (1,041 L)	550 gal. (2,082 L)

Table 1. Mix Component Steps by Tank

Note: Before grouting, perform a “cup test”. A cup tests consists of using two (2) disposable cups, filling one cup 25% full of Tank A solution, and the other cup 25% full of Tank B solution. Using a watch with a second hand or stopwatch, track the time required for the solutions to gel – or cure - as you mix the solutions together, gently stirring the mixed solution. The normal gel time at 72°F should be approximately 1-2 minutes at room temperature (72°F). For additional information regarding gel times, call your Avanti representative.

AV-150 Gel Times in Seconds

AV-150	AV-101 and AV-103 % on Total Batch				
Temp.	1%	2%	3%	4%	5%
80°F	178	87	67	55	48
70°F	252	111	71	62	55
60°F	370	152	109	85	68
50°F	413	196	130	107	78
40°F	763	285	160	140	100

Table 2. Estimated Gel Times in Seconds

Note: The gel times presented are based on controlled laboratory conditions and are for reference purpose only. It should be expected that gel times will vary on the job site. It is the sole responsibility of the user to verify and monitor gel times of their specific grout mix.

About the Products

- **AV-150 Acrylate Gel™** – clear liquid, high solids acrylic blend.
- **AV-101® Catalyst T+** - colorless liquid which is used as a required activator for the reaction of AV-150. The special blend of ingredients in AV-101 reduces its freezing point to 0°C and enhances the final gel. AV-101 is can only be added to the grout side tank. AV-101 is incompatible with oxidizing compounds such as AV-102 AP or AV-103 SP and should be stored in a tightly closed container in an area isolated from other chemicals.
- **AV-103® Catalyst SP** – Sodium persulfate, white crystalline solid used as the initiator for the radical polymerization reaction of acrylic and acrylate monomers. Required component and can be increased from 5 lbs. to a maximum of 25 lbs. AV-103 can only be added to the catalyst side tank. AV-103 is a strong oxidizing material which decomposes over time.

Optional Additives

- **Tracer Dyes** – dye powder or tablets used to track the travel of the grout. Various colors are available.

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