

AV-105 Gel Guard™

Freezing-Point Reducer

Description

AV-105 Gel Guard™ is a very effective freezing-point depressant for cold weather applications. The amount of AV-105 added to acrylic monomer grout solutions will determine the freezing-point depression. AV-105 Gel Guard™ is used with all of Avanti's free radical activated acrylic monomer grouts and hydrophilic urethane gel:

- AV-100® Chemical Grout
- AV-118® Duriflex
- AV-150 Acrylate Gel™
- AV-160 SuperGel™
- AV-170 FlexGel™
- AV-254 Gelseal™ (add to water side only)

Features & Benefits

- Adding 10% can lower freezing temperatures by as much as 9°F (5°C)
- Easily added to chemical grout solutions
- Excellent additive when grouting in or above the frost line.
- Provides freeze protection for both the acrylic solution grouts and the cured/gelled poly-acrylic copolymer.

How It Works

AV-105 may be added to each tank of the chemically activated gel systems or water tank only for hydrophilic urethane gel systems. When adding to acrylic monomer grout solutions, substitute the make-up water with AV-105 Gel Guard. AV-105 is an antifreeze agent when added in the acrylic solution grouts and remains an antifreeze agent in the cured/gelled acrylic grout solutions, protecting the gel matrix from damaging freeze/thaw cycles.

Packaging – product is packaged by net weight

- Container – 9.2 lb. (4.2 kg)
- Pail – 46 lb. (20.8 kg)
- Drum – 510 lb. (231.3 kg)

Physical Properties*

Appearance	Clear liquid
Viscosity (water=1)	15 – 20 cP @ 72°F (22°C)
Flash Point	>200°F (>93°C)
Specific Gravity (water=1)	1.115 @ 72°F (22°C) ± 3%
Density	9.30 lb./gal ± 3% (1.115 kg/L ± 3%)

* Laboratory results

Mix Procedure Example for AV-100 Chemical Grout (50-gal. mix at 12% Concentration with 10% AV-105 and 1% catalysts)

Percentage of catalysts and additives are calculated on total batch mix (Tank A + Tank B).

See detailed Mixing Guidelines for various acrylic monomer grout concentrations and tank sizes at avantigrout.com.

Grout Tank (Tank A) with 10% AV-105

1. Add 6 gallons (22.7 L) of water.
2. Add one 50 lb. bag (granules) or one 130 lb. drum (liquid) of AV-100 to tank.
3. Add 0.5 gallon (1.9 L) of AV-101® Catalyst T+.
4. Add 2.5 gallons (9.5 L) of AV-105 Gel Guard.
5. Fill with water up to the 25-gallon mark.
6. Mix thoroughly.

Catalyst Tank (Tank B) with 10% AV-105

1. Add 10 gallons (37.8 L) of water.
2. Add 5 lb. (2.27 kg) of AV-102® Catalyst AP or AV-103® Catalyst SP.
3. Add 2.5 gallon (9.5 L) of AV-105 Gel Guard.
4. Fill with water up to the 25-gallon mark.
5. Mix thoroughly.

IMPORTANT: At elevated temperatures, AV-102 or AV-103 dissolved in water loses its effectiveness rapidly.

Note: Ingredients for both tanks are only compatible with stainless steel or plastic.

Performance

AV-105 Freezing Point*			
	10%	20%	30%
20% AV-100 mixed with 2% AV-101	12°F (-11°C)	-3°F (-19°C)	-26°F (-32°C)
2% AV-102 Solution	19°F (-7°C)	10°F (-12°C)	-5°F (-20°C)
Water	26°F (-3°C)	18°F (-8°C)	7°F (-14°C)

* Laboratory results

Note: Adding other additives to the batch mixture might influence the final freezing-point.

Cleaning

If cross contamination has occurred, remove all cured gel, dissolve baking soda in water, and rinse grouting equipment thoroughly followed by multiple clean water rinses. Dispose of water in accordance with local, regional, national and international regulations.

Storage

Store in temperatures within or near 45°F – 95°F (7°C – 35°C) in a dry atmosphere. **Caution:** Keep AV-105 away from oxidizers such as AV-102 Catalyst AP or AV-103 Catalyst SP.

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.

Shipping – Motor and Air Freight available

- Not regulated under US DOT Regulations

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