

AV-202-NTP Multigrout NTP™

Hydrophilic Polyurethane Grout

Description

AV-202-NTP Multigrout NTP™ is a versatile, single-component polyurethane injection resin formulated with an MDI/TDI blend. AV-202-NTP is activated by moisture and engineered to seal active water leaks in large cracks or joints in concrete and brick structures. AV-202-NTP forms a strong, impermeable bond with excellent adhesion when mixed at a 1:1 water-to-resin ratio or turns into a gel at a 10:1 ratio. This version is equivalent to AV-202® Multigrout, however NOT certified for use in potable water applications.

Applications

- Large cracks or joints in concrete, or used in conjunction with AV-215 Resin Rod™ or AV-219 Fibrotite™ (Oakum)
- Designed for applications where high-volume water flow is an active and/or potential problem, and a high viscosity chemistry is required
- Used successfully in manhole sealing and pipe penetrations
- Excellent choice for moving cracks and joints

Features & Benefits

- 100% solids
- Free rise expands 300% – 600%
- Non-corrosive
- Cures flexible with excellent adhesive properties
- Can accept up to 10X its volume in water
- Can be used in underwater applications
- Non-potable version (NTP)
- Available as NSF/ANSI/CAN 61 Drinking Water Systems Component Certified
- Multiple grouting techniques including Expanded Gasket Placement Technique (EGP), Needle Penetration Technique (NPT), and Variable Pressure Application Technique (V-PAT) – Crack Injection

How AV-202-NTP Works

AV-202-NTP reacts with moisture to form a durable, flexible seal accomplished by three mechanisms. First the resin seeks out water in the space and pores of the substrate and adheres to the surface. Second, the resin/water reaction begins to expand forming a tight compressive seal and third the network of compressed grout material within all the cracks establishes a mechanical lock. The preferred ratio is 1:1 (water to resin), however it is effective up to a ratio of 10:1 with water. AV-202-NTP may be pumped as a single component without pre-mixing.

Optional Products

- AV-203 Multicat™ – cream and Gel time accelerator

Packaging – product is packaged by net weight except when indicated

Grout

- Cartridge - ~10.1 fl. oz. (~ 300 ml), Case of 12 ea.
- Container – 8.8 lbs. (4.0 kg)
- Pail – 44 lbs. (20 kg)
- Drum – 484 lbs. (219.5 kg)

Optional Catalyst

- Container - 78 fl. oz. (2.31 L)

Physical Properties*

UNCURED	
Appearance	Brown resin
Viscosity (water=1)	3,200 – 6,000 cP @ 77°F (25°C)
Flash Point	>200°F (>93°C)
Specific Gravity (water=1)	1.095 @ 72°F (22°C) ± 3%
Density	9.13 lbs./gal ± 3% (1.095 kg/L ± 3%)
CURED	
Appearance	Milky colored, flexible
Tensile Strength	Consult Avanti Representative
Elongation	

* Laboratory results

Performance - General

Gently shake or stir container(s) before using. For the best results, use AV-202-NTP between 60°F – 90°F (16°C – 32°C). Performance will be influenced by site conditions. If site temperatures are low, use a heat source to warm to ~72°F (22°C) and apply. Do not use open flame as a heat source. At temperatures of 45°F (7°C), the viscosity of the product can significantly increase, making the miscibility with the reaction-water more difficult. The times presented are laboratory results. Actual results may be different in the field due to site water used or site conditions. Perform a standard cup test with site water to determine the desired reaction time.

Performance Using AV-202-NTP

See Table below for approximate Cream/Gel Times for AV-202-NTP.

Cream / Gel (Cure) Times for AV-202-NTP Multigrout NTP (Min:Sec)*1,2				
		1:1 Water/AV-202-NTP	5:1 Water/AV-202-NTP	10:1 Water/AV-202-NTP
Temperature	40°F/4°C	0:39 / 3:02	2:04	3:34
	50°F/10°C	0:28 / 1:51	1:28	1:43
	60°F/15°C	0:24 / 1:36	1:14	1:38
	70°F/21°C	0:21 / 1:05	0:52	0:56
	80°F/27°C	0:15 / 0:55	0:42	0:41

*Laboratory results

Note: Cream time is not applicable with grout to water ratios above 1:1.

1. Resin and water temperatures may affect cream / gel times.

2. Actual results may be different in the field due to site water used or site conditions.

Performance When Adding AV-203 Multicat

Note: AV-203 should NOT be used when injecting at ratios higher than 1:1 water to AV-202-NTP.

AV-203 Multicat may be used at low temperatures and/or high flow water cut-off situations at a maximum of 78 fl. oz. of AV-203 per pail of AV-202-NTP. When AV-203 is used with AV-202-NTP to slow down high waterflows, it should not be used as a stand-alone solution but in conjunction with any of Avanti's injection grouts. See Table below for approximate Cream/Gel Times for AV-202-NTP used with AV-203.

Cream / Gel (Cure) Times for AV-202-NTP Multigrout NTP + AV-203 Multicat (Min:Sec)*1,2			
		1:1 Water/AV-202-NTP + Half Catalyst (Resin:Catalyst, 16:1)	1:1 Water/AV-202-NTP + Full Catalyst (Resin:Catalyst, 8:1)
Temperature	40°F/4°C	0:21 / 1:07	0:17 / 0:50
	50°F/10°C	0:18 / 0:51	0:15 / 0:42
	60°F/15°C	0:15 / 0:47	0:13 / 0:35

*Laboratory results

Note: Cream time is not applicable with grout to water ratios above 1:1. Do not use more than one container of AV-203 catalyst per pail of AV-202-NTP.

1. Resin and water temperatures may affect cream / gel times.

2. Actual results may be different in the field due to site water used or site conditions.

Cleaning

Do not use water to clean equipment. AV-202-NTP is 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
- 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. Avanti does not recommend storing full or partially filled containers of AV-202-NTP that have been catalyzed or mixed with AV-203. Catalyzed grout may react over time or if not stored correctly.

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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