



EUCLID CHEMICAL

NS GROUT

Non-shrink, Non-staining, Non-metallic Grout

Description

NS GROUT is designed for critical use where high strength, non-staining characteristics and positive expansion are required. NS GROUT contains only natural aggregate and an expansive cementitious binder. It is extremely flowable. When cured, it appears similar to concrete in appearance.

Primary Applications

- Pumps and fans
- Compressors & motors
- Generators
- Machine bases of all types
- Anchor bolts
- Column baseplates

Features/Benefits

- Non-staining natural aggregate for better appearance
- Excellent bearing
- Compatible with galvanic anodes (Fluid)
- Appearance of plain concrete
- Does not contain any added chloride ions
- Outstanding strength

Technical Information

Material properties tested under laboratory conditions @ 75°F (24°C), 50% RH

Property	Flowable Consistency	Fluid Consistency
Flow Rate (ASTM C939/CRD C621)	120% (Flow Table)	20 to 30 seconds (Flow Cone)
Compressive Strength (ASTM C109 Modified*) 2 in (50 mm) cubes	3 days 4500 psi (31 MPa) 7 days 6000 psi (41 MPa) 28 days 8500 psi (59 MPa)	3 days 3500 psi (24 MPa) 7 days 5000 psi (34 MPa) 28 days 6800 psi (47 MPa)
Expansion (CRD C621)	3 days 0.02% 7 days 0.02% 14 days 0.03% 28 days 0.03%	3 days 0.01% 7 days 0.03% 14 days 0.05% 28 days 0.05%
Setting Time	Initial Set 3 to 5 hours Final Set 4 to 6 hours	

* See ASTM C 1107 Section 11.5

Packaging/yield

NS GROUT is packaged in 50 lb (22.7 kg) bags and pails. 50 lbs yields 0.45 ft³ (0.013 m³) of fluid grout when mixed with 1.2 gal (4.5 L) of water.

NS GROUT 50 lb (22.7 kg) with 25 lbs (11.3 kg) of 3/8" (9.5 mm) pea gravel will yield approximately 0.60 ft³ (0.017 m³) of flowable consistency grout. Use pea gravel for deep fills over 5" (12.7 cm) only.

Shelf Life

2 years in original, unopened package

Appearance

NS GROUT is a free flowing powder designed to be mixed with water. After mixing and placing, the color may initially appear much darker than the surrounding concrete. While this color will lighten up substantially as it cures and dries out, the grout may always appear somewhat darker than the surrounding concrete.

Specifications/Compliances

- Fully complies with CRD C 621, Corps of Engineers Specification for Non-Shrink Grout
- Fully complies with ASTM C 1107, Standard Specification for Packaged Dry, Hydraulic-Cement Grout
- Canadian MTQ

Directions for Use

Note: The contractor and engineer are encouraged to consult and review the Euclid Chemical bulletin: "Cementitious Grout Application Guide". The document offers instructions detailing the general installation of Euclid Chemical manufactured cement-based grout products. **Important:** If the contractor is not familiar with standard grout placement techniques, a pre-job meeting is suggested to review the project details unique to the particular job. Contact your local Euclid Chemical representative for additional information.

Mixing Consistency:

Estimated Water Content*

Fluid	1.1 to 1.2 gal/50 lb bag (4.2 to 4.5 L/22.7 kg)
Flowable	0.9 to 1.0 gal/50 lb bag (3.4 to 3.8 L/22.7 kg)
Plastic	0.8 to 0.9 gal/50 lb bag (3.0 to 3.4 L/22.7 kg)

** Do not add water in an amount that will cause bleeding or segregation. More or less water may be required to achieve a 25 second flow or the desired placing consistency, depending on temperature and other variables. Do not add sand or cement to the grout since this action will change its precision grouting characteristics.*

Where NS GROUT will be placed at a **thickness over 5" (12.7 cm)**, up to 25 lb (11.3 kg) of pea gravel must be added to each bag of grout. Note that the water demand to achieve a certain flow level of the grout will change. Once the correct amount of water has been added to a clean mixing pail, mix the grout with a high speed drill and mixing paddle for 3 minutes. Quickly transport the grout to the placement area.

Placing: NS GROUT sets more rapidly than plain mortars; therefore, place quickly and continuously. If placing this product in hot weather, the use of cold water will increase the working time.

Curing and Sealing: Proper curing procedures are important to ensure the durability and quality of the grout. Wet cure the grout until the forms are stripped. Cure the grout with a high solids curing compound, such as SUPER REZ-SEAL or SUPER AQUA-CURE VOX.

Clean-Up

Clean tools and equipment with water before the material hardens.

Precautions/Limitations

- Do not add sufficient water to promote bleeding of the grout.
- Do not use this product at a flow cone rate of less than 20 seconds if checking flow rates on the job site (see CRD C-611 or ASTM C 939 for flow cone method).
- Do not add any admixture or fluidifiers.
- Proper curing is required.
- Do not use material at temperatures that may cause premature freezing.
- Rate of strength gain is significantly affected at temperature extremes.
- Do not allow grout to freeze until 4000 psi (27.6 MPa) is attained.
- Employ cold or hot weather grouting practices per ACI guidelines as the temperature dictates.
- Store materials in a dry place.
- For dry pack applications, mechanically mix NS GROUT at a minimum water content of 0.5 gal/50 lb bag (1.9 L/22.7 kg)
- Add pea gravel when placing at a thickness greater than 5" (12.7 cm).
- In all cases, consult the Safety Data Sheet before use.

Rev. 2.17

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