

# NS GROUT

## NON-SHRINK, NON-STAIN, NON-METALLIC GROUT

### DESCRIPTION

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

### 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
- Flowable and self-leveling
- Compatible with Galvanic Anodes (Fluid)
- High strength
- Appearance of plain concrete
- Does not contain any added chloride ions
- ▲ Can contribute to LEED points.

### TECHNICAL INFORMATION

#### Typical Engineering Data

The following results were developed under laboratory conditions.

**Flowable Consistency** 1.0 gal/50 lb (3.8 L/22.7 kg)

**Flow Rate** ASTM C 939 & CRD C 621

Flow (flow table) ..... 120%

**Compressive Strength** ASTM C 109 Modified\*

2" (50 mm) cubes\_

3 days ..... 5,000 psi (34 MPa)

7 days ..... 7,000 psi (48 MPa)

14 days ..... 8,000 psi (55 MPa)

28 days ..... 9,000 psi (62 MPa)

\*See ASTM C 107 Section 11.5 & 11.5.1 - 11.5.3

**Expansion** CRD C 621

3 days ..... 0.01%

7 days ..... 0.06%

14 days ..... 0.06%

28 days ..... 0.06%

**Freeze/Thaw Resistance** ASTM C 666 Procedure A

300 cycles ..... 97.0%

**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 the concrete cures and dries out, the grout may always appear somewhat darker than the surrounding concrete.

**Fluid Consistency** 1.2 gal/50 lb (4.5 L/22.7 kg)

**Flow Rate** ASTM C-939 & CRD C 621

Flow Cone ..... 20 to 30 seconds

**Compressive Strength** ASTM C 109 Modified

2" (50 mm) cubes

3 days ..... 4,000 psi (28 MPa)

7 days ..... 6,000 psi (41 MPa)

14 days ..... 6,500 psi (45 MPa)

28 days ..... 7,000 psi (48 MPa)

**Expansion** CRD C 621

3 days ..... 0.01%

7 days ..... 0.06%

14 days ..... 0.06%

28 days ..... 0.06%

**Setting Time** ASTM C 191

Initial Set ..... 3 hrs 5 mins.

Final Set ..... 4 hrs 47 mins.

### PACKAGING/YIELD

NS GROUT is packaged in 50 lb (22.7 kg) bags and pails. 50 lbs yields 0.45 ft<sup>3</sup> (0.013 m<sup>3</sup>) 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 ft<sup>3</sup> (.017 m<sup>3</sup>) of flowable consistency grout. Use pea gravel for deep fills over 2" (50 mm) deep only.

### SHELF LIFE

2 years in original, unopened package.



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## SPECIFICATIONS/COMPLIANCES

- Fully complies with CRD C 621, Corps of Engineers Specification for Non-Shrink Grout.
- Fully complies with ASTM C 1107-05, "Standard Specification for Packaged Dry, Hydraulic-Cement Grout (non-shrink).

## DIRECTIONS FOR USE

**Note:** The contractor and engineer are encouraged to consult and review the Euclid Chemical bulletin "Application Instructions-Cementitious Grouting." 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	1.2 to 1.25 gal/50 lb bag (4.5 L/22.7 kg)
Flowable	1.0 gal/50 lb bag (3.8 L/22.7 kg)
Plastic	.9 gal/50 lb bag (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 2" (50 mm)**, 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.

**Placing:** NS GROUT sets more rapidly than plain mortars; therefore, place quickly and continuously. If placing this product in hot weather, 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. Then, cure the grout with a high solids curing compound, such as SUPER REZ-SEAL, SUPER FLOOR COAT 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 to freeze until 4000 psi (27.6 MPa) is attained.
- Employ cold weather or hot weather grouting practices as the temperatures dictates.
- Store materials in a dry place.
- Do not use as a topping.
- Add pea gravel when placing at a thickness over 2" (50 mm).
- In all cases, consult the Material Safety Data Sheet before use.

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