NS METALLIC GROUT

Non-catalyzed Grout

EUCLID CHEMICAL

Description

NS METALLIC GROUT is a factory-blended, non-shrink grout for use in critical applications. It incorporates the latest technological advances in shrinkage prevention and internal reinforcement. It is non-staining and, therefore, useful in many aesthetic applications. NS METALLIC GROUT is internally reinforced with specially processed iron aggregate for exceptional durability under heavy duty loading.

Primary Applications

- Heavy duty grouting of machinery and equipment
- Structural columns
- Crane rails
- Bridge seats
- Bearing plates

Features/Benefits

- Non-shrink; positive expansion
- Stable iron aggregate - edges will not ravel
- Does not contain added chloride
- Easily placed at fluid consistency

Technical Information

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

Property	Result
Fluid Consistency	1.0 gal water/50 lb bag (8.7 L/22.7 kg)
Flow Rate (flow cone) ASTM C 939 & CRD C 621	25 seconds
Expansion CRD C 621	3 days: +0.06% 14 days: +0.06% 28 days: +0.06%
Compressive Strength ASTM C 109 Modified (see ASTM C 1107 Sections 11.5)	1 day: 3,500 psi (24 MPa) 3 days: 5,000 psi (34 MPa) 7 days: 6,500 psi (45 MPa) 28 days: 7,000 psi (48 MPa)

Appearance: NS METALLIC 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 substantially as the grout cures and dries out, the grout may always appear somewhat darker than the surrounding concrete.

Packaging/Yield

NS METALLIC GROUT is packaged in 50 lb (22.7 kg) bags. One 50 lb (22.7 kg) bag of NS METALLIC GROUT mixed with 1.0 gal (3.8 L) of water will yield 0.38 ft^3 (.011 m^3) of fluid grout.

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
- Shows positive expansion when tested in accordance with ASTM C 1090, Standard Test Method for Measuring Changes in Height of Cylindrical Specimens from Hydraulic Cement Grout
- Meets the performance requirements of ASTM C 1107, "Combination Volume Adjusting Grout 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: "Cementitious Grout Application Instructions". 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 Company representative for additional information.

Mixing Consistency	Estimated Water Content	Mix Time
Fluid	0.85 to 1.00 gal (3.2 to 3.8 L)	5 min.
Flowable	0.80 to 0.90 gal (3.0 to 3.4 L)	5 min.
Plastic	0.70 to 0.80 gal (2.6 to 3.0 L)	5 min.

Where NS METALLIC GROUT will be placed at a thickness over 5" (12.7 cm), up to 20 lb (9.1 kg) of clean and damp 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 slightly. Do not add sufficient water to promote bleeding of the grout.

Placing: NS METALLIC GROUT sets more rapidly than plain grouts; therefore, place quickly and continuously. If placing this product in hot weather, the use of cold water will increase the working time. NS METALLIC GROUT is most easily placed at temperatures of 60°F to 70°F (16°C to 21°C).

Application: See the "Cementitious Grout Application Guide" for installation means and methods.

Clean-Up

Clean tools and equipment with water before the material hardens.

Precautions/Limitations

- Do not use a flow cone rate of less than 20 seconds if checking flow rates on the job site (see CRD C 611 of ASTM C 939 for flow cone method)
- Do not use with any admixtures or fluidifiers.
- Proper curing is required
- Add clean and damp pea gravel when placing at a thickness over 5" (12.7 cm) deep.
- Employ cold and hot weather grouting practices per ACI standards as the temperatures dictate.
- Do not use material at temperatures that may cause premature freezing.
- Keep the grout from freezing until a minimum strength of 4,000 psi (27.6 MPa) is reached.
- Store product in a dry place.
- In all cases, consult the Safety Data Sheet before use.

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