

## CG-86™ N.E.

### Construction-Grade Grout

#### DESCRIPTION

CG-86 N.E. construction-grade grout is a non-gaseous, non-shrink economical grout. It was specifically developed as a high strength, cost-effective, general-purpose grout for use across a broad range of large and small construction projects. CG-86 N.E. will not rust and contains no added chlorides or gypsum. It is furnished premixed and ready to use. CG-86 N.E. may be extended for deep grouting with pea gravel for greater yield and increased economy. CG-86 N.E. is freeze-thaw stable and may be used interiorly or exteriorly, above- or below-grade.

#### USES

CG-86 N.E. is versatile and designed for base-plate grouting, anchoring, precast wall panels, and bridge seats. CG-86 N.E. is suitable for transportation, industrial, commercial, and municipal applications.

#### FEATURES/BENEFITS

- Furnished premixed and ready to use ... just add water.
- Excellent freeze-thaw characteristics ... long-term stability.
- Provides a high strength, non-shrink grout for a broad range of general construction projects.
- Offers the strength and characteristics required for cost-effective, general-purpose grouting.
- Cost reductions are realized when extended with pea gravel for deep grouting.
- Requires no separate bonding agent.
- No site batching required for consistent results.
- Chloride- and gypsum-free.

#### PACKAGING

50 lb. (22.7 kg) Poly-lined Bags

#### YIELD

0.43 ft.<sup>3</sup> (0.012 m<sup>3</sup>) per bag.

#### SHELF LIFE AND STORAGE

Store on pallets in a cool, dry location. Do not store product outdoors. Shelf life of properly stored product is one year from date of manufacture in unopened, original container.

#### SPECIFICATIONS

ASTM C 1107 Grade A, B, C  
Corps of Engineers Spec. CRD-C-621

#### TECHNICAL DATA

Consistency (ASTM C 827-95A)	Plastic	Flowable
Mix Ratio (per 50 lb.)	2.5 quarts (2.36 L)	3.1 quarts (2.92 L)
Flow (ASTM C 230-90)	100%	120%
Set Time (per C191-92, Initial)	4-6 hours	5-7 hours
Bond Strength at 28 Days (ASTM C 882 Modified)	2300 psi (15.9 MPa)	2500 psi (17.2 MPa)
Freeze-Thaw Resistance (ASTM C 666, Procedure A, 300 Cycles)	100.7% Relative Dynamic Modulus	100.7% Relative Dynamic Modulus
Compressive Strength (ASTM C 109-93)		
@ 1 day	3500 (24.1 MPa)	3000 (20.7 MPa)
@ 3 days	4500 (31 MPa)	4000 (27.6 MPa)
@ 7 days	6000 (41.4 MPa)	5500 (37.9 MPa)
@ 28 days	7500 (51.7 MPa)	7000 (48.3 MPa)

All technical data is typical information, but will vary due to testing methods, conditions, procedures, batching variations, and raw material variances.

**CONTINUED ON REVERSE SIDE...**

## APPLICATION

Grouting application shall be performed in accordance with American Concrete Institute (ACI) 351.1R: Grouting between Foundations and Bases for Support of Equipment and Machinery and other applicable ACI recommendations.

**Surface Preparation ...** All grout contact surfaces must be free of oil, grease, scale, penetrating sealers, or all other types of contaminants that will interfere with the bond. Mechanically roughen or high pressure water-jet the existing concrete substrate. Surface must be rough and profiled, but generally level. Grouting area must be saturated with water 12-24 hours prior to grouting. Remove all excess water before placing grout.

**Pouring ...** Method of forming must provide for rapid, continuous grout placement. Ensure form is well-sealed and an appropriate form release agent has been applied for that type of form.

**Placement ...** CG-86 N.E. is easily placed by pouring or pumping and compaction can be accomplished by rodding or tapping. Place grout on one side, flowing to opposite and adjacent sides, to avoid entrapment of air. When necessary, provide vent holes. Grout "head" and excess grout may be removed after initial set.

**Curing ...** Immediately following application, cure CG-86 N.E. using a suitable curing compound from W. R. MEADOWS or in accordance with ACI 308. W. R. MEADOWS recommends the 2200-WHITE series or 1130-CLEAR. When conditions exist for rapid early water loss, the use of EVAPRE™, an evaporation retarder from W. R. MEADOWS, is also recommended.

**Venting ...** Forming also must ensure adequate venting to avoid air entrapment. Do not make close fitting forms; allow 1/2" (12.7 mm) clearance and 1" (25.4 mm) for "head."

**Mixing ...** Small quantities of CG-86 N.E. may be hand mixed in a concrete mixing pan until lump-free. For large quantities and continuous pours, use a mortar mixer with rubber-tipped blades. Mix for a minimum of three minutes or until uniform

and lump-free. Use minimum water required to produce desired placement consistency. Do not mix more than can be placed in 15 minutes. Do not re-temper. Use only clean, potable water.

To achieve a plastic consistency, mix 2.5 quarts (2.36 L) of cool, potable water per bag. For a flowable consistency, mix 3.1 quarts (2.92 L) of cool, potable water per bag. Always add 2/3 of the required mixing water for desired consistency to the mixing vessel prior to adding the powder. Slowly add the powder and mix for 2-3 minutes and adjust the consistency using the remaining 1/3 allowable water. Continue mixing until homogenous and lump free.

Set time and strength development are dependent on temperature; therefore, follow ACI methods during hot or cold weather grouting.

ACI 305 - "Standard on hot weather concreting"  
ACI 306 - "Standard on cold weather concreting"

Cost reductions are realized when grouting large areas by adding washed, dried, and graded pea gravel. For thicknesses 2" to 4", add up to 25% 3/8" pea gravel. For medium-flow mixes, 4" and over, add up to 50% 3/8" pea gravel, plastic mix. Addition of pea gravel is based on percentage of the weight of the dry grout.

## PRECAUTIONS

Do not use as a repair mortar. (Please contact W. R. MEADOWS for specific repair mortar recommendations.) Grouting should be done using established concreting procedures according to ACI recommendations. Read and follow application information, precautions, and Material Safety Data Sheet information.

## LEED INFORMATION

May help contribute to LEED credits:

- MR Credit 2: Construction Waste Management
- MR Credit 4: Recycled Content
- MR Credit 5: Regional Materials

**For most current data sheet, further LEED information, and MSDS, visit [www.wrmeadows.com](http://www.wrmeadows.com).**



## LIMITED WARRANTY

"W. R. MEADOWS, INC. warrants at the time and place we make shipment, our material will be of good quality and will conform with our published specifications in force on the date of acceptance of the order." Read complete warranty. Copy furnished upon request.

## Disclaimer

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