

588-10K

Non-Shrink, Non-Ferrous, Mineral-Aggregate-Based Precision Grout

DESCRIPTION

588-10K is a hydraulic-cement-based, precision, non-shrink, load-bearing grout designed to transfer load effectively and safely, ensuring long service time of the grouted item. It is a non-corrosive, non-metallic, mineral-based precision grout, developed to have high initial and ultimate flexural and compressive strengths. It can be mixed quickly, as needed, on the jobsite. 588-10K offers exceptional workability and is easily placed by pouring or pumping. The product is designed to give non-shrink performance under various conditions for both interior and exterior applications.

USES

588-10K is designed for precision grouting of machinery and equipment base plates, windmill turbines, generators, rolling mills, compressors, or similar types of machinery. 588-10K is also designed for grouting soleplates, bridge seats, precast columns and beams, steel column pads, precast beams, and segmental bridge construction. 588-10K can also be used for anchoring of guardrails, signposts, bridge seats, anchor bolts, guide wires, and dowels.

FEATURES/BENEFITS

- May be mixed to plastic, flowable, and fluid consistencies for easy of application.
- Very high compressive and flexural strengths.
- High modulus to ensure proper load transfer.
- Non-shrink ensures proper load transfer.
- Quickly and easily placed by pouring or pumping.
- Resists heat up to 600° F (315° C).
- Resists many chemicals, including oils, petroleum products, solvents, and mild caustic alkalis.
- May be extended up to 50%.
- No added chloride or gypsum.

PACKAGING

50 Lb. (22.7 kg) Poly-Lined Bags

SPECIFICATIONS

- ASTM C 1107
- Corps of Engineers Specification: CRD-C 621
- USDA Accepted

SHELF LIFE

Twelve months when stored indoors on pallets in a dry, cool area. Do not store product outside.

YIELD

Each bag yields 0.43 - 0.64 ft.³ (0.0122 m³) of in-place grout using the median water ratio level, dependent upon rate of extension.

APPLICATION

Grouting application shall be performed in accordance to American Concrete Institute (ACI) 351.1R: Grouting Between Foundations and Bases for Support of Equipment and Machinery and other applicable industry standard practices.

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.

Forming ... Forming method must provide for rapid, continuous grout placement. For pouring, allow a minimum clearance of 3" for entry and 6" minimum grout "head." Forming must also provide for venting to avoid entrapment of air. Provide 1/2" minimum form clearance on all sides and 1" clearance for head. Ensure form is well sealed and an appropriate form release agent has been applied for that type of form.

Mixing ... Small quantities of 588-10K may be hand-mixed in a concrete mixing pan until lump-free. For large quantities and continuous pours, mix using a mortar mixer with rubber-tipped blades or appropriate grout pump for a minimum of three minutes or until lump-free and uniform. Use the minimum water required to produce desired placement consistency. Use 6.5 pts. (3.1 L) of water per bag for plastic consistency; 7.25 pts. (3.4 L) for medium flow (pourable), and 8.25 pts. (3.9 L) for high flow. Mix in two steps: add 2/3 of water requirement, then add grout. After partial mixing, add remainder of water for desired consistency. Thoroughly mix total quantity for 2 - 3 minutes. Do not mix more than can be placed in 15 minutes at 75° F (23° C). Do not re-temper.

For most recent data sheet, further LEED information, and MSDS, visit www.wrmeadows.com.

CONTINUED ON REVERSE SIDE...

TECHNICAL DATA

The following data was determined using the water amount for desired consistency as stated below per bag at 75° F (23° C).

Consistency per ASTM C 827-95a	Plastic	Flowable	Fluid
Mix Ratio per 50 lb. bag	6.5 Pints (3.07 L)	7.25 Pints (3.43 L)	8.25 Pints (3.89 L)
Flow per <u>ASTM C 230-90</u> 5 Drops/Flow Table	110%	130%	
Flow per ASTM C 939-94a Flow Cone			6s
SET TIME per ASTM C 191-92			
Initial Set	1 hr.	3 hrs.	5 hrs.
Final Set	3 hrs.	5 hrs.	7 hrs.
EXPANSION			
Age:			
24 hours	0.13%	0.10%	0.02%
3 days	0.16%	0.13%	0.04%
7 days	0.17%	0.13%	0.05%
28 days	0.17%	0.14%	0.06%
SHRINKAGE %	NONE	NONE	NONE
COMPRESSIVE STRENGTH			
AGE	psi (MPa)	psi (MPa)	psi (MPa)
1 day	5,500 (37.9)	4,500 (31.0)	3,500 (24.1)
3 days	6,500 (44.8)	5,500 (37.9)	4,500 (31.0)
7 days	7,500 (51.7)	6,500 (44.8)	5,500 (37.9)
28 days	11,000 (75.8)	9,200 (63.4)	8,200 (56.5)
<i>All technical data is typical information, but will vary due to testing methods, conditions, procedures, batching variations, and raw materials variances.</i>			

Placement ... 588-10K 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. W. R. MEADOWS recommends the Machine Technologies P-25 mortar pump and D-25 continuous mixer for pumping applications. For more information, visit www.machine-technologies.com.

Curing ... Immediately following application, cure 588-10K using a suitable curing compound from W. R. MEADOWS, or in accordance with ACI 308. 2200-WHITE series or 1100-CLEAR series from W. R. MEADOWS is recommended. When conditions exist for rapid early water loss, the use of EVAPRE™ from W. R. MEADOWS is also recommended.

**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

The information contained herein is included for illustrative purposes only, and to the best of our knowledge, is accurate and reliable. W. R. MEADOWS, INC. cannot however under any circumstances make any guarantee of results or assume any obligation or liability in connection with the use of this information. As W. R. MEADOWS, INC. has no control over the use to which others may put its product, it is recommended that the products be tested to determine if suitable for specific application and/or our information is valid in a particular circumstance. Responsibility remains with the architect or engineer, contractor and owner for the design, application and proper installation of each product. Specifier and user shall determine the suitability of products for specific application and assume all responsibilities in connection therewith.

PRECAUTIONS

Do not use as a repair mortar. (Please contact W. R. MEADOWS for specific repair mortar recommendations.) Do not pre-mix in a ready-mix truck, either at batching plant or onsite.

LEED INFORMATION

May help contribute to LEED credits:

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