



ChemMasters®

Conset Grout™ NY

Non-shrink, Non-metallic
Cementitious Construction Grout

SPECIALTY CONSTRUCTION PRODUCTS

P R O D U C T D A T A

DESCRIPTION

ChemMasters' Conset Grout NY approved by the State of New York Department of Transportation as a repair, grouting, and shear key grout material under List Number 7.42-3.1-1, Sections 701.04, 701.05, and 701.06. Meets ASTM Standards C1107, and CRD C-621 specification.

ADVANTAGES

- Flowable and self consolidating
- May be placed at plastic consistency for increased strength requirements – up to 8,800 psi after 28 day cure
- Non-shrink for maximum load bearing
- Can be extended 50% for placements over 2 inches (5cm) deep
- Natural aggregate matches the color of concrete
- Chloride free, nonmetallic, contains no additives known to cause oxidation or deterioration of base concrete, or reinforcing steel, and will not rust
- Pumpable for rapid placement on large projects

USES

Building Columns	Hand Rails
Bridge Beams	Boiler Plates
Sewers	Precast Beams
Precast Columns	Dowels
Fence Posts	Highway Barriers
Anchor Bolts	Base Plates
Bed Plates	Underpinnings

Packaging—Item Number

50 lb (23 kg) moisture proof bags	60/pallet	F2310.50NY
Bulk bags 1 cubic yard 3000 lb (1364 kg)	na	F2310.00NY

TECHNICAL DATA

Yield per 50 lb (22.7 kg) bag

	ft ³	m ³
Plastic	0.42	0.011
Flowable	0.43	0.012
Fluid	0.45	0.013

Water Requirements per 50 lbs (22.7 kg)

	Pints	Liters
Plastic	8	3.78
Flowable	9	4.25
Fluid	10	4.73

Set Times ASTM C191/Vicat Method Hours to set

	Initial	Final
Plastic	2.5	3.0
Flowable	3	3.5
Fluid	4	4.5

Compressive Strength AASHTO T 106

(Cured to 701-05 per NYSDOT)

psi/MPa @ X days

	1 day	7 day	28 day
Plastic	4520/31	6430/44	8800/61
Flowable	3150/22	6000/41	7480/52
Fluid	2390/16	4830/30	6710/46

Expansion ASTM C1090 / CRD C 621 % X days

	24 hrs	3days	7 days	28 days
Plastic	0.07	0.07	0.08	0.18
Flowable	0.03	0.03	0.04	0.10
Fluid	0.04	0.04	0.05	0.06

Pull-Out Strength (flowable consistency) *

Grouting Position	Tension Load (lbs)	Failure Mode
Vertical	11,500	Concrete Failed
Vertical	14,000	Test Stopped
Horizontal	12,500	Concrete Failed
Horizontal	14,000	Test Stopped

*NYDOT requires #5 reinforcement bar grouted 6" deep in a 7/8" diameter hole in saturated, surface dried concrete shall have a pullout strength of 10,000 lbs minimum.



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VOLUME GROUTING

For applications over 2 inches (5cm) deep, **Conset Grout NY** may be extended with up to 25 lbs (11 kg) of clean, SSD 3/8" (0.95cm) pea gravel per bag. With 9 pints (4.3 liters) of water, yield will increase to approximately 0.6ft³ (0.017m³) Flow will decrease significantly when including pea gravel in the mix..

DIRECTIONS:

Grouting is best accomplished at temperatures between 40° and 90°F (4° and 32°C). For extremely low or high temperatures, follow the guidelines established by ACI for cold or hot weather grouting or consult ChemMasters for additional recommendations.

PREPARATION: The concrete substrate base must be clean and free of any curing or sealing compounds, dust, dirt, oil, and grease. The base should be textured where possible using a small chipping hammer. Presoak the substrate with water for 24 hours to prevent premature drying of the grout. Cover with wet burlap or polyethylene sheeting to retain moisture.

FORMING: Forms will be required for most grouting applications. Top edges of forms must be higher than bottom of base plate to be grouted. Seal bottom edges of forms to prevent grout from leaking. Construct forms with a larger gap, at least 2 inches (5cm), between form and base being grouted. Use a slant board or construct a head box to direct flow of grout from front to back. Allow at least a 1 inch (2.5cm) gap at backside of form to facilitate flow and allow air to escape in front of grout flow. All forms in contact with the grout must be coated with ChemMasters' **Release** or **Safe-Slip**.

MIXING: New York State DOT requires maximum 1 gallon of water per 50lb (3.785L / 22.7kg) of **Conset Grout N.Y.** A paddle type mortar mixer, grout pump, or heavy duty 1/2" drill and mixing prop are required.

Place about 80% of required water into clean and pre-wet mixer or container. (Use only as much water as required to properly place the grout. Adding excess water decreases strength and expansion.) With mixer blades operating, open bag, gradually empty into mixer, mix for about 1 minute, add remaining water, mix for 3 to 4 minutes. Following this sequence should eliminate lumping, and keep mixer clean and free of excess build-up. Mix enough **Conset Grout NY** in each batch to fill void completely to eliminate cold joints or air pockets.

PLACEMENT: Always place grout from one side at a steady, continuous flow to push air out in front of grout flow, ensuring maximum surface bearing of the plate or base. Do not vibrate grout.

CURING: Proper curing is required! As soon as grout placement is complete, wet cure the exposed surfaces or apply New York State approved ChemMasters' **Safe Cure Clear^{DR}** with red dye, **Safe Cure 2000**. If wet curing, wet burlap may be used following the guidelines in ACI 351, *Grouting for Support of Equipment and Machinery*.

CLEANUP: Clean tools and equipment with warm water before material dries and hardens.

STORAGE: Store unopened bags on pallets between 40 and 80°F (4 to 26°C) in a dry environment. Shelf life, when properly stored, is one year from date of manufacture.

LIMITATIONS

- Do not apply to frost covered or frozen surfaces. At substrate or ambient temperatures below 40°F (4°C) follow 306 *Cold Weather Concreting* guidelines. For placement at temperatures 90°F (32°C) and higher follow ACI 305 *Hot Weather Concreting*.
- ChemMasters recommends the use of ChemGrout mixers and pumps for placements under large base-plates or with a difficult configuration
- Contact ChemMasters' Technical Service Staff for special recommendations on precision grouting, dry pack situations, or unusual circumstances
- For close tolerance placement or heavy duty applications subjected to extreme thermal shock, chemical resist, extreme high strength or dynamic loading, consider the use of ChemMasters' **Kemset**, **Met-Ox**, **Polytops CR**, **Polytops HF** or **Polytops CR Grout**

Precautions:

DANGER: Harmful if swallowed. Causes severe skin burns and eye damage. May cause an allergic skin reaction. Causes serious eye damage. May cause respiratory irritation. Suspected of causing cancer. May cause damage to organs through prolonged or repeated exposure if inhaled. Precautionary Statements: Do not breathe dust/fume/gas/mist/vapours/spray. Wash hands and skin thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection.

Keep out of reach of children

This Product is Formulated and Labeled for Industrial and Commercial Use Only

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