



# ChemMasters

SPECIALTY CONSTRUCTION PRODUCTS

## CONSET GROUT

NONSHRINK, NONMETALLIC  
CEMENTITIOUS CONSTRUCTION GROUT

### P R O D U C T D A T A

#### DESCRIPTION

Conset Grout is a prepackaged, cementitious, nonshrink, nonmetallic grout. It is a high strength grout that may be placed at plastic, flowable and fluid consistencies allowing versatile placement under varying conditions. Conset Grout is approved for use by numerous DOT's.

#### USES

- Building Columns
- Hand Rails
- Bridge Beams
- Boiler Plates
- Sewers
- Machine Bases
- Sole Plates
- Precast Beams
- Precast Columns
- Dowels
- Fence Posts
- Highway Barriers
- Anchor Bolts
- Base-plates
- Bed Plates
- Underpinning
- Wall Panels
- Pipes/ Sleeves

#### ADVANTAGES

- Flowable and self-leveling
- May be placed at plastic consistency for increased strength requirements
- Nonshrink for maximum load bearing
- Can be extended for placements over 2 inches ( 5 cm) deep
- Natural aggregate matches the color of concrete
- Pumpable for rapid placement on large projects
- Contains no oxidizing components, will not rust

#### PACKAGING

Conset Grout is packaged in 50 pound poly-lined moisture proof bags, shipped 60 per pallet shrink wrapped. Conset Grout is also available in 3,000 pound (1 cubic yard) bulk bags subject to minimum order requirements.

#### TECHNICAL DATA

##### Meets the Standards of

ASTMC-1107-99, Grade C  
CRDC-621-92

##### Flow (ASTM C-230)—Flow Table, 5 drops

	Water per 50 lb. bag*		
Plastic	8 pints	3.8 L	107%
Flowable	9 pints	4.3 L	145%
Fluid	9-10 pints	4.3-4.7 L	30 seconds **

\* For ODOT keyway grouting, do not use more than 8.5 pints (4 liters) per 50 pounds

\*\* Flow cone

##### Set Times (ASTM C-191/Vicat Method)

	Initial	Final
Plastic	2.2 hours	3.5 hours
Flowable	2.2 hours	3.5 hours
Fluid	3.2 hours	4.0 hours

##### Compressive Strength (ASTM C-109 - 2" cubes) psi

	1 day	7 days	28 days
Plastic	2,775	6,160	7,150
Flowable	2,590	5,260	6,870
Fluid	2,100	4,920	6,030

##### Expansion (ASTM 1090 / CRD C-621) - Moist Cured

	24 hours	3 days	14 days	28 days
Fluid	+0.03%	+0.03%	+0.02%	+0.02%

##### Yield per 50 pound (22.7 Kg) bag

Plastic	0.42 Ft. <sup>3</sup>	0.011 M <sup>3</sup>
Flowable	0.43 Ft. <sup>3</sup>	0.012 M <sup>3</sup>
Fluid	0.45 Ft. <sup>3</sup>	0.013 M <sup>3</sup>

##### Early Height Change (ASTM C827)

Average of 2 3"x6" cylinders +1.2%

VOLUME GROUTING: For applications over 2 inches ( 5 cm) deep, Conset Grout may be extended with up to 25 pounds (11 Kg) of clean, SSD 3/8" (0.95 cm) pea gravel per bag. With



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9 pints (4.3 liters) of water, yield will increase to approximately 0.6 Ft.<sup>3</sup> (0.017M<sup>3</sup>) When including pea gravel in the mix, flow will decrease significantly.

#### **DIRECTIONS**

Grouting is best accomplished at temperatures between 40° - 90°F (4° - 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 upon which the grout will be placed must be clean and free of any curing or sealing compounds, dust, dirt, oil or 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 baseplate to be grouted. Seal bottom edges of forms so that grout will not leak. Construct forms with a larger gap, at least 2 inches (5 cm), 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 (2.5 cm) 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 a release agent such as Release or Safe-Slip from ChemMasters.

**MIXING:** 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 but pre-wet mixer or container. Use only as much water as will be required to properly place the grout. Adding excess water decreases strength and expansion. **For Ohio Department of Transportation keyway grouting applications, use a maximum of 8.5 pints (4 liters) of water per bag of Conset Grout.**

If aggregate is used, add to the water. Do not add sand or cement to Conset Grout. With mixer blades operating, open bag(s) and gradually empty into mixer. Mix for about 1 minute, then add remaining water and mix for 3-4 minutes. Following this sequence should eliminate lumping and keep mixer clean and free of excess buildup.

**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 a high quality curing compound, such as Spray-Cure Clear or Safe Cure Clear. 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 before material dries and hardens with warm water.

#### **LIMITATIONS**

- Do not apply to frost covered or frozen surfaces or at substrate or ambient temperatures below 40°F (4°C). Follow ACI 305 *Hot Weather Concreting* and 306 *Cold Weather Concreting* guidelines for placement during extremely hot or cold temperatures
- ChemMasters recommends the use of ChemGrout mixers and pumps for placements under large baseplates 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

#### **CAUTIONS**

May cause eye and respiratory tract irritation. Over exposure may cause skin irritation. Do not take internally. Keep out of reach of children.

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

FOR BEST RESULTS AND SAFEST USAGE, USER IS SPECIFICALLY DIRECTED TO CONSULT THE CURRENT MATERIAL SAFETY DATA SHEET AND PACKAGE LABEL FOR THIS PRODUCT

We warrant our products to meet our published specifications and to be free from defects in materials and workmanship to the acceptable quality levels defined in these specifications. If acceptable quality levels are not specified, the acceptable quality levels will be those normally supplied by us for the product. We make no guarantee of the results to be obtained from the use of our products. The determination as to the adaptability of any of our products to the specific needs of the Buyer is solely Buyer's prerogative and responsibility. We are glad to offer suggestions on the use of our products. Nevertheless, there are no warranties given except such expresses warranties offered in connection with the sale of a particular product. Our liability shall be limited to replacement of, or refund of an amount not to exceed the purchase price attributed to, the goods as to which such claim is made. Our selection of one of these alternatives shall be Buyer's exclusive remedy. IN NO CASE SHALL WE BE LIABLE FOR CONSEQUENTIAL OR SPECIAL DAMAGES, EVEN IF WE HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. THE FOREGOING WARRANTIES ARE IN LIEU OF ALL OTHER WARRANTIES, GUARANTEES, CO-CONDITIONS AND REPRESENTATIONS, EITHER EXPRESSED OR IMPLIED, WHETHER ARISING UNDER ANY STATUTE, COMMON LAW, USAGE OR TRADE, COURSE OF DEALING OR OTHERWISE, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.