



# ChemMasters®

## SPECIALTY CONSTRUCTION PRODUCTS

# Conset™ Grout-XT

Non-shrink, Non-metallic, X-Treme  
Temperature Construction Grout

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

### DESCRIPTION

ChemMasters' **Conset Grout-XT**, is a non-shrink, non-metallic, construction grout with exceptional flow and performance characteristics when used under X-Treme temperature conditions. Conset Grout-XT may be used at dry pack, plastic, flowable, or fluid consistency. Meets or exceeds ASTM Standards C1107 and CRD C-621.

### ADVANTAGES

- Flowable and self-consolidating
- Superior flow and performance characteristics, even at temperature extremes of 45 to 90° F
- May be placed at fluid, flowable, or plastic consistency, or dry packed
- Non-shrink for maximum load bearing
- May be extended 50% for placements over 2 inches (5 cm) deep
- Natural aggregate matches the color of concrete
- Contains no oxidizing components, 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
Wall Panels	Pipes/Sleeves

### Packaging

Container	lbs / kg	Pallet	Item#
Moisture proof bags	50 / 22.7	60	F2310.50XT

## TECHNICAL DATA

### Yield per 50 lb (22.7 kg)

	ft <sup>3</sup>	m <sup>3</sup>
Plastic	0.40	0.011
Flowable	0.42	0.011
Fluid	0.44	0.012

### Flow ASTM C 230 Flow Table, With water per 50 lb (22.7 kg)

	Pints	Liters	5 drops
Plastic	6.5 to 7	3.0 to 3.3	104%
Flowable	7.5 to 8	3.5 to 3.8	125%
Fluid	9.5 to 10	4.5 to 4.7	<30 seconds

### Compressive Strength ASTM C 109 / C 109M 2" Cubes - psi @ x days to cure

	1	3	7	28
Plastic	5570	7690	8980	10560
Flowable	4980	6610	7830	9530
Fluid	3690	5440	6830	8850

### Expansion ASTM 1090 / CRD C 621 Moist Cured

	1 day	3 days	14 days	28 days
Fluid	0.06%	0.09%	0.09%	0.10%

### ASTM C827 Early Height Change

Average of two 3" x 6" cylinders	+ 0.7%
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### VOLUME GROUTING

For applications over 2 inches (5cm) deep, **Conset Grout-XT** may be extended with up to 25 lbs (11 kg) of clean, SSD 3/8" (0.95 cm) pea gravel per bag. With 9 pints (4.3L) of water yield will increase to approximately 0.6ft<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 from 45° to 90°F (7° to 32°C). For extremely low or high temperatures, follow the ACI 305 Hot Weather Concreting or ACI 306 Cold Weather Concreting or consult ChemMasters' Technical Service Department for additional recommendations.



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300 EDWARDS STREET • MADISON, OHIO 44057-3112 (440) 428-2105 • FAX (440) 428-7091 • ORDERLINE: (800) 486-7866 [www.chemmasters.net](http://www.chemmasters.net)

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**PREPARATION:** The concrete substrate where 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 base plate to be grouted. Seal bottom edges of forms to prevent grout from leaking. Construct forms with a larger gap, at least 2" (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" (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 ChemMasters' **Release** or **Safe-Slip**.

**MIXING:** A paddle type mortar mixer, grout pump, or heavy duty 1/2" drill with mixing prop are required. Place approximately 80% of required water into clean pre-wet mixer or container. Use only as much water as needed to properly place the grout. Adding excess water decreases strength and expansion.

When using aggregate add it to the water. Do not add sand or cement to **Conset Grout-XT**. With mixer blades operating, open bag, gradually empty into mixer, mix for about 1 minute, add remaining water, and mix for 2 to 3 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 or use a ChemMasters' *ASTM C 309 Liquid Membrane Forming Curing Compound*. Contact ChemMasters Technical Service Department for recommendations. 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.

## LIMITATIONS

- Do not apply to frost covered or frozen surfaces or at substrate or ambient temperatures below 45°F (7°C). Follow ACI 305 *Hot Weather Concreting* and 306 *Cold Weather Concreting* guidelines for placement when temperature is below 45°F (7°F) or above 90°F (32°C).
- 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' **Gorilla Grout**, **Kemset**, **Met-Ox**, **Polytops CR**, **Polytops HF** or **Polytops CR Grout**

Proper application is the responsibility of the user. ChemMasters can only make technical recommendations and cannot provide quality control on the jobsite.

## 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 Statement:** Do not breathe dust/fume/gas/mist/vapor/spray. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. In case of inadequate ventilation wear respiratory protection. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection. Read and understand Safety Data Sheet before use.

**Storage:** Store in a well ventilated place. Store this material in appropriate container or containment structure. Store locked up.

**See the Safety Data Sheet for further details regarding safe use of this product.**

**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 PRODUCT & SAFETY DATA SHEETS 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.