TECHNICAL DATA

SC PRECISION GROUT HP

High Strength, Non-Shrink Grout

GREENCONSCIOUS

DESCRIPTION

SC PRECISION GROUT HP is a non-shrink, non-metallic , high-flow, cement-based grout. SC PRECISION GROUT HP is formulated for a wide variety of grouting applications, from plastic to fluid through a controlled, positive expansion. Designed to provide effective load bearing for high strength grouting applications.

USE

SC PRECISION GROUT HP is an ideal product for interior or exterior grouting of architectural and structural precast concrete components, structural column base plates, machinery bases, anchoring bolts, cable anchorages, dowels, bearing pads, keyway joints, crane rails etc.
SC PRECISION GROUT HP is used in power plants, steel mills, paper mills, oil refineries, food plants, sewage and water treatment plants or anywhere a high-quality engineered grout is required.

FEATURES / BENEFITS

- High flow/High early compressive strength capability
- Minimize project downtime
- Controlled positive expansion for maximum effective bearing
- Non-metallic / non-corrosive
- Pourable / pumpable versatility
- Excellent freeze / thaw resistance
- Can be extended with pea stone for deep applications
- Resistant to thermal shock
- USDA accepted

SPECIFICATIONS / COMPLIANCES

Corp of Engineers CRD C621 Grade A, B & C
ASTM C1107/1107M. Grade A, B & C (formerly known as CRD C621), ASTM C827

APPLICATION

Preparation: Remove all dirt, oil, and loose or foreign material. Any metal in contact with grout must be free of rust, oil, grease, and other foreign matter which would limit bond. Concrete surface must be sound and roughened to insure proper bonding.
Prior to placing grout, surface must be saturated surface dry (SSD), if possible for an hour. Remove all excess water before placement of grout. Bolts, base plates and equipment must be secure and rigid before placement of grout.
All materials and surfaces in contact with the grout should be conditioned between 50°- 80°F for proper performance. Provide heating or cooling, as necessary, to compensate for temperature extremes and changes in cure time
Forms: Allow for the continuous placement of grout. Provisions for venting to avoid air entrapment must be made. Placing from one side, provide a 45° angle in the forms to

APPLICATION (cont.)

a height suitable to provide a head of grout during placement. On all sides, provide a minimum 1" (2.54 cm) horizontal clearance between the base plate and forms. Forms should be at least 1" (2.54 cm) higher than the bottom of the base plate.
Mixing: Small quantities of grout 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 5 minutes. Start with minimum water requirements.
Always add water to mixer first, then slowly add powder. Use only the amount of water required for the desired placement consistency. Mix in two steps: Add 2/3 of the water, add grout, after partial mixing add the remaining 1/3 of the water for desired consistency. Thoroughly mix total quantity for an additional 2 to 3 minutes. Do not mix more than can be placed before in 40 minutes.

TYPICAL PERFORMANCE DATA

	Plastic	Flowable	Fluid
Water / 50 lb.	6.5 - 6.8 pints	6.8 - 7.8 pints	7.8 - 8.4 pints
Setting Time (ASTM C191)			
Initial Set	1:50 hrs	3:10 hrs	4:00 hrs
Final Set	3:00 hrs:	3:40 hrs	5:40 hrs
Compressive Strength (ASTM C109)			
	Plastic	Flowable	Fluid
1 day	6500 psi	6,000 psi	4,500 psi
7 days	11,700 psi	10,600 psi	6,900 psi
28 days	13,000 psi	12.300 psi	8,800 psi
Expansion Percentage (ASTM C1090)			
	Plastic	**Flowable**	**Fluid**
1 day	0.07	0.03	0.02
3 days	0.07	0.03	0.02
14 days	0.07	0.03	0.02
28 days	0.07	0.03	0.02
Bond Strength (ASTM C882) = 2225 psi @ 28 days			
Flexural Strength (ASTM C-78) = 1415 psi @ 28 days			
Tensile Strength (ASTM C-190) = 645 psi @ 28 days			
Split Tensile Strength (ASTM C-496) = 785 psi @ 28 days			

Note: The data shown is based on controlled laboratory testing. Reasonable variation from test results shown can be expected. Field and laboratory testing should be controlled on the basis of the desired placing consistency, rather than strictly on water content.

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APPLICATION (cont.)

Dry-Pack/Damp-Pack: When mixed with a minimum amount of water (4.8-5.5 pints) a very stiff/dry-pack consistency can be achieved for applications not requiring forms. Dry pack/damp pack consistency will exhibit higher strengths than grout mixed to a plastic consistency.

Placing: Place continuously and quickly. Start from one side to avoid air entrapment. Be sure grout fills spaces and remains in contact with plate. Use a rod or strapping to help move the grout in large or difficult applications. DO NOT VIBRATE. Place grout only to the bottom of the base plate.

Curing: Immediately cover with clean, wet rags and keep moist until final set. After final set, remove rags and apply an ASTM C309 curing compound, such as SpecChem Cure & Seal 25 or SpecChem Cure & Seal 25 WB.

Special Conditions:
Deep application: Pre-washed and graded 3/8" (1 cm) pea gravel should be used in large applications (greater than 1' x 1') and thicker than 3" (7.62 cm) as follows:

3"-5" (7.62-12.7 cm): Add 25% of 3/8" (1 cm) pea gravel per 50 lb bag of grout.
5" (12.7 cm) and over: Add 50% of 3/8" (1 cm) pea gravel per 50 lb bag of grout.
Place in 6" lifts with proper reinforcement

Hot weather conditions: Accelerates setting time and causes premature drying of the grout. Keep the grout cool. Store unopened bags in the shade. Provide shade for area to be grouted. Use cool or chilled mixing water. Protect grout from direct sun exposure for up to 24 hours after grouting. For additional information, refer to ACI 305 (Recommended Practices for Hot Weather Concreting).

Cold weather conditions: Retards strength gain and set time. Warm the grout above 50°F. Raise the temperature of the area to be grouted with space heaters or steam. Warm the mixing water. Cover and insulate the grout to retain warmth. The minimum temperature (ambient, substrate, and grout) for grouting is 40°F (5°C) unless special provision are followed. For additional information, refer to ACI 306 (Recommended Practices for Cold Weather Concreting)

LIMITATIONS / PRECAUTIONS

DO NOT place at temperatures below 40°F (5°C) unless special provisions are followed. At low temperatures, water requirement should be field tested.

When nearby equipment causes vibration of the grout, during set, such equipment should be shut down for a period of 24 hours (at 73°F (23°C)). DO NOT mix over 5 minutes. DO NOT over water; this can cause bleeding or separation. DO NOT retemper. DO NOT add cement, sand, or admixtures.

Avoid hazards by following all precautions found in the Safety Data Sheets (SDS), product labels, and technical literature.

SHELF LIFE / STORAGE

SC PRECISION GROUT HP should be stored in a cool, dry interior area. At no time should material be exposed to high moisture, rain, or snow conditions. When stored in the original, tightly closed container, the shelf life is one year from the date of manufacture.

PACKAGING / YIELD

50 lb (22.7Kg) multiple plastic lined bag will yield approximately 0.45 cu. ft. in a fluid condition.
50% by weight extension (25 lbs) of 3/8" pea stone will yield approximately 0.59 cu. ft.

TECHNICAL SERVICES

For assistance, contact technical services at: 866-791-8700 816-968-5600 www.specchem.com

24 HOUR EMERGENCY CONTACT:
VelocityEHS
1-(800)255-3924 (North America)
+1-813-248-0585 (International)
1-300-954-583 (Australia)
0-800-591-6042 (Brazil)
400-120-0751 (China)
000-800-100-4086 (India)
800-099-0731 (Mexico)
Made in America

WARRANTY

NOTICE-READ CAREFULLY
CONDITIONS OF SALE
SpecChem offers this product for sale subject to and limited by the warranty which may only be varied by written agreement of a duly authorized corporate officer of SpecChem. No other representative of or for SpecChem is authorized to grant any warranty or to waive limitation of liability set forth below.
WARRANTY LIMITATION
SpecChem warrants this product to be free of manufacturing defects. If the product when purchased was defective and was within use period indicated on container or carton, when used, SpecChem will replace the defective product with new product without charge to the purchaser. SpecChem makes no other warranty, either expressed or implied, concerning this product. There is no warranty of merchantability. NO CLAIM OF ANY KIND SHALL BE GREATER THAN THE PURCHASE PRICE OF THE PRODUCT IN RESPECT OF WHICH DAMAGES ARE CLAIMED.
INHERENT RISK
Purchaser assumes all risk associated with the use or application of the product.

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