T E C H N I C A L D A T A

SC PRECISION GROUT HS

High Performance/High-strength Grout

GREENCONSCIOUS

Description

A unique non-shrink, non-metallic, cementitious grout that provides high early and ultimate compressive strength throughout a variety of applications. The unique formula when mixed with water, creates a grout that is flowable and pumpable.
Designed to provide effective load bearing for high strength precision grouting applications such as compressors, heavy equipment foundations and tank bases.

Use

For use in areas exposed to excessive heavy loads or vibration due to high-performance, industrial machinery.

Benefits

- High early/ultimate compressive strength capability
- Minimize equipment 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
- Coefficient of thermal expansion equivalent to concrete

Applicable Standards

ASTM C1107, Grade A, B & C and CRD C-621 Grade A, B & C compliant.

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 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.

Application (Continued)

Forms should be at least 1" (2.54 cm) higher than the bottom of the base plate.

Mixing: Single bag quantities of grout may be mixed in a 5 gal pail with a heavy duty drill/mixer (Collomix Xo 55R Duo suggested) For large quantities and continuous pours, mix using a mortar mixer with rubber tipped blades or appropriate grout mixer/pump. Do not exceed 5.75 pints of water or mix more than can be placed before in 30 minutes.

Start with minimum water requirements. Always add water to mixer first, while mixing ,slowly add powder. Use only the amount of water required for the desired placement consistency. **Thoroughly mix for 3-4 mins, then pause mixing for 30 sec to allow induction period, then continue mixing for an additional 1 min. to desired consistency.**

Typical Performance Data

Compressive Strength (ASTM C109)	Recommended Water	
	5.5 Pints of water	5.75 Pints of water
24 Hours	10,150	9,360
3 Days	11,450	10,620
7 Days	14,680	13,670
28 Days	17,260	16,200
Hardened Expansion (ASTM C 1090)	0.09%	0.08%
Setting Time (Initial)	150 Minutes	150 Minutes
Setting Time (Final)	180 Minutes	180 Minutes
Consistency, flow test (2" X 4")	10"	10.5"
Mixed Density (lbs/cu-ft)	145	143
Slant Shear Bond		
3 Days	3300 psi	3050 psi
7 Days	3400 psi	3140 psi
28 Days	3500 psi	3220 psi

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Application (Continued)

Dry-Pack/Damp-Pack: When mixed with a minimum amount of water (4.8-5.0 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. DO NOT VIBRATE. A minimum of 1" (2.48 cm) vertical clearance should be maintained for base plate grouting applications. Thinner vertical clearances may require the use of another type of grout.

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)

Storage/Shelf Life

Store SC Precision Grout HS 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.

Limitations/Precautions

Always test a small amount of SC Precision Grout HS to verify that the product has been thoroughly mixed and will harden properly before proceeding.
When using a heavy duty drill/mixer, avoid repeatedly moving the mixer up and down which can entrapping excessive air .
Surface and air temperatures must be a minimum of 40°F for application. Recommended application temperature is 55°F to 95°F. Higher temperatures will shorten work time and could limit pour volumes. Deep application (over 6") require full aggregate extension.
Prolonged or repeated skin or eye contact may cause irritation. Use safety glasses and wear protective rubber gloves. If skin contact occurs, wash immediately with soap and water and seek medical help if needed. If eye contact occurs, flush immediately with water and seek medical help if needed. In case of ingestion, call a physician. Product is a sensitizer. Avoid breathing vapors.

Warranty

INDUSTRIAL USE ONLY
Additional precautions, safety and first aid information are contained in the Safety Data Sheet.

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.

Packaging

50 lb (22.7Kg) multiple plastic lined bag will yield approximately 0.42 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

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