# TECHNICAL DATA SHEET

# SC PRECISION GROUT

*Non-Shrink, Non-Metallic Grout*

## DESCRIPTION

SC Precision Grout is a non-shrink, non-metallic, high-flow, cement-based grout. SC Precision Grout 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-flow precision grouting applications.

## USES

SC Precision Grout 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 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.

## BENEFITS

- High flow/high early compressive strength capability
- Minimizes 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

## COMPLIANCE/STANDARDS

- Corps of Engineers CRD-C 621, Grade A, B & C
- ASTM C1107/C1107M, Grade A, B & C
- ASTM C827

## MIXING INSTRUCTIONS

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 an appropriate grout pump for a minimum of 5 minutes. Start with minimum water requirements. Always add water to the 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 the grout, and after partial mixing add the remaining 1/3 of the water for the desired consistency. Thoroughly mix the total quantity for an additional 2 to 3 minutes. Do not mix more than can be placed in 40 minutes.

**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.

## 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 that would limit bond. The concrete surface must be sound and roughened to ensure proper bonding. Prior to placing grout, the surface must be saturated surface dry (SSD), if possible for a minimum of one 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 °F and 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. When 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. Forms should be at least 1" (2.54 cm) higher than the bottom of the base plate.

**Placing:** Place continuously and quickly. Start from one side to avoid air entrapment. Be sure grout fills spaces and remains in contact with the 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 the rags and apply an ASTM C309 curing compound, such as SpecChem Cure & Seal 25 or SpecChem Cure & Seal 25 WB.

**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" (15 cm) lifts with proper reinforcement.

**Hot Weather Conditions:** Hot weather accelerates setting time and causes premature drying of the grout. Keep the grout cool. Store unopened bags in the shade. Provide shade for the 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:** Cold weather retards strength gain and set time. Warm the grout material 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 provisions are followed. For additional information, refer to ACI 306 (Recommended Practices for Cold Weather Concreting).

## COVERAGE

Per 50 lb bag (fluid) ..... approx. 0.45 cu ft
With 50% pea stone (25 lb)..... approx. 0.59 cu ft

## TECHNICAL DATA INFORMATION

**Water per 50 lb Bag (pints)**

| | Plastic | Flowable | Fluid |
|---|---|---|---|
| **Water** | 6.5–6.8 | 6.8–7.8 | 7.8–8.4 |

**Setting Time, h:min (ASTM C191)**

| | Plastic | Flowable | Fluid |
|---|---|---|---|
| **Initial set** | 1:50 | 3:10 | 4:00 |
| **Final set** | 3:00 | 3:40 | 5:40 |

**Compressive Strength, psi (ASTM C109)**

| Age | Plastic | Flowable | Fluid |
|---|---|---|---|
| **1 day** | 4,300 | 3,500 | 3,000 |
| **3 days** | 5,800 | 5,300 | 4,600 |
| **7 days** | 8,700 | 7,600 | 5,900 |
| **28 days** | 11,000 | 10,275 | 8,800 |

**Expansion, % (ASTM C1090)**

| Age | 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 |

**At 28 Days**

Bond strength (ASTM C882)..... 2,125 psi

Flexural strength (ASTM C78)..... 1,315 psi
Tensile strength (ASTM C190)..... 600 psi
Split tensile strength (ASTM C496) ..... 735 psi

*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.*

## PACKAGING

50 lb (22.7 kg) multi-wall, plastic-lined bag

## SHELF LIFE

SC Precision Grout 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.

## LIMITATIONS

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.

## PRECAUTIONS

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

## TECHNICAL SERVICES

For assistance, contact Technical Services at 866-791-8700 or 816-968-5600.

**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.

*Revised 09/30/26*