

SONOGROUT® 10K

Cementitious, shrinkage-compensated,
nonmetallic high-strength grout

PRODUCT DATA

3 03600

Grouts

Description

SonogROUT® 10K is Portland-cement-based, shrinkage-compensated high-strength grout that conforms to Corps of Engineers CRD-C-621-83 and ASTM C 1107. Its nonmetallic formula does not rust, bleed, or harm metals on contact. Its cost-effectiveness makes it ideal for large jobs.

Yield

0.40 ft³/50 lb bag
(0.011 m³/22.7 kg bag)

Packaging

50 lb (22.7 kg) bags

Color

Concrete gray

Shelf life

9 months when properly stored

Storage

Store in unopened containers in a clean, dry area.

Features

- One component
- Dimensionally stable
- Dry pack to pourable consistency
- No added chlorides, iron, or gypsum
- Freeze/thaw cycling stable
- Nonefflorescing

Where to Use

APPLICATION

- Structural columns
- Machinery bases
- Bearing plates
- Pump and equipment bases
- Rail posts
- Seating bolts
- Power-line stanchions
- Food and chemical plants
- General new construction
- Restoration

LOCATION

- Interior or exterior

SUBSTRATE

- Concrete

Benefits

- Mixes easily with water
- Needs no special treatment at edges, opened ends, cappings, or cut backs
- Easy to place; versatile
- Will not rust, bleed, or harm metals on contact
- Excellent durability
- Maintains a clean appearance; may be painted or coated

How to Apply

Surface Preparation

1. All areas to be grouted must be clean and free of oil, grease, dirt, and contaminants. Remove all loose materials.
2. Concrete must be fully cured a minimum of 28 days.
3. Where required, provide air-relief openings to avoid entrapment of air.
4. All metal components to be in contact with SonogROUT® 10K must be free of rust, paint, or oils. For additional protection, coat reinforcing steel with Sonoprep™ Plus (See Form No. 1017986).
5. All concrete to come into contact with the grout must be thoroughly saturated with clean water for a minimum of 12 hours before placement of grout. Remove excess water from holes and voids just before grout placement.

Technical Data

Composition

SonogROUT® 10K contains Portland cement and silicon dioxide.

Compliances

- Corps of Engineers CRD-C-621
- ASTM C 1107, Grade A
- City of Los Angeles Research Report # RR25187T

Test Data

PROPERTY	RESULTS	TEST METHODS
Compressive strength, psi (MPa)		ASTM C 109
Dry pack		
28 days	11,500 (79.2)	
Very stiff paste		
28 days	10,000 (68.9)	
Minimum flow (soft to plastic)		
1 day	2,900 (20.0)	
3 days	6,500 (44.8)	
7 days	7,200 (49.6)	
28 days	9,200 (63.4)	
Moderate flow (plastic to pourable)		
1 day	1,600 (11.0)	
3 days	3,800 (26.2)	
7 days	5,100 (35.2)	
28 days	6,200 (42.7)	
<p>Dry pack mixed at 2 qts water/50 lb bag (1.9 L /22.7 kg bag); very stiff paste mixed at 2-1/4 qts water/50 lb bag (2.14 L/22.7 kg bag); minimum flow tested at 2-1/3 qts water/50 lb bag (2.21 L/22.7 kg bag); moderate flow tested at 3-1/8 qts water/50 lb bag (3.0 L/22.7 kg bag).</p>		
Volume change, %		ASTM C 1090
1 day	+0.032	
3 days	+0.032	
7 days	+0.034	
14 days	+0.034	
28 days	+0.035	

Test results are averages obtained under laboratory conditions. Reasonable variations can be expected.

Mixing

1. Precondition SonogROUT® 10K to 70° F ±5° (21° C ±3°) before mixing.
2. SonogROUT® 10K is ready to use and requires only the addition of water. Use the minimum water required to achieve the desired placement consistency, approximately the following amounts.
 - a) Dry pack: 2 qts/50 lb bag (1.9 L/ 22.7 kg bag)
 - b) Very stiff paste: 2-1/4 qts/50 lb bag (2.14 L/22.7 kg bag)
 - c) Minimum flow: 2-1/3 qts/50 lb bag (2.21 L/22.7 kg bag)
 - d) Moderate flow: 3-1/8 qts/50 lb bag (3.0 L/22.7 kg bag)
3. Mix mechanically with a slow speed drill and mixing paddle
4. Mix no longer than 5 minutes and place immediately.

Application

1. For column base plates and machinery bases, follow forming procedures that allow for rapid and continuous placement of the grout and complete filling of the space to be grouted.
2. Support elements should be anchored so that no movement is possible. Remove supports only after SonogROUT® 10K has hardened sufficiently.
3. SonogROUT® 10K should be placed in accordance with standard grouting procedures and ACI recommendations for placing and curing of concrete.
4. Use chains, rods, or tamping devices to compact grout tightly, completely removing all air voids. Place grout quickly and continuously, striking off exposed areas. The minimum placement depth is 1/2" (13 mm).
5. For grouting beyond 2" (51 mm) in depth, extend SonogROUT® 10K with up to 50 lbs (22.7 kg) of properly sized, washed, saturated surface-dry (SSD), graded, low-absorption, high-density aggregate. Use ACI concrete guidelines for proper practices regarding aggregate extension.

6. Water addition and temperatures will determine set time. From dry pack to flowable, set time will vary from approximately 3 – 8 hours. Lower temperatures will lengthen and higher temperatures will shorten the working and setting times.

Curing

Curing of the installed SonogROUT® 10K is mandatory. Either moist cure for at least 3 days or use any ASTM C 309-compliant Sonneborn® curing compound on the exposed surfaces. Take extra care to retain moisture on installations in direct sunlight, high temperatures, and wind.

Clean Up

Clean all tools and equipment with water immediately. Cured material can be removed by mechanical means only.

For Best Performance

- Place SonogROUT® 10K at a temperature as close to 70° F (21° C) as possible.
- Pre-treat wood surfaces that can absorb moisture with forming oils.
- Edges of concrete to be grouted that are less than 1" (25 mm) thick must be cut back to form a square-cut edge.
- For improved bond to existing concrete, use either EpoGrip™ or Sonoprep™ Plus (see Form No. 1017922 or 1017986).
- Exceeding published water requirements will decrease performance.
- Do not add any cement or any other additives to SonogROUT® 10K.
- Do not retemper grout after initial mixing.
- Exposed finished grout must be cured; use sheeting, water, or any Sonneborn® curing compound.
- Handle like concrete regarding protection against temperatures and weather; do not exceed limitations set by the American Concrete Institute on placement of concrete.
- When grouting particularly heavy equipment or when anticipating excessive vibration, consider the use of Sonneborn® 14K Hy Flow (see Form No. 1017942).
- Additional information on grouts and trade practices can be found in "Cementitious Grouts and Grouting," published by the Portland Cement Association.
- Make certain the most current versions of product data sheet and MSDS are being used; call Customer Service (1-800-433-9517) to verify the most current version.
- Proper application is the responsibility of the user. Field visits by Degussa personnel are for the purpose of making technical recommendations only and not for supervising or providing quality control on the jobsite.

Health and Safety

SONOGROUT® 10K

Caution

SonogROUT® 10K contains Portland cement, and silicon dioxide (quartz).

Risks

Product is alkaline on contact with water and may cause injury to skin or eyes. Ingestion or inhalation of dust may cause irritation. Contains small amount of free respirable quartz which has been listed as a suspected human carcinogen by NTP and IARC. Repeated or prolonged overexposure to free respirable quartz may cause silicosis or other serious and delayed lung injury.

Precautions

KEEP OUT OF THE REACH OF CHILDREN. Prevent contact with skin and eyes. Prevent inhalation of dust. DO NOT take internally. Use only with adequate ventilation. Use impervious gloves, eye protection and if the TLV is exceeded or is used in a poorly ventilated area, use NIOSH/MSHA approved respiratory protection in accordance with applicable federal, state and local regulations.

First Aid

In case of eye contact, flush thoroughly with water for at least 15 minutes. SEEK IMMEDIATE MEDICAL ATTENTION. In case of skin contact, wash affected areas with soap and water. If irritation persists, SEEK MEDICAL ATTENTION. Remove and wash contaminated clothing. If inhalation causes physical discomfort, remove to fresh air. If discomfort persists or any breathing difficulty occurs, SEEK IMMEDIATE MEDICAL ATTENTION. If swallowed, SEEK IMMEDIATE MEDICAL ATTENTION.

Refer to Material Safety Data Sheet (MSDS) for further information.

Proposition 65

This product contains materials listed by the state of California as known to cause cancer, birth defects, or other reproductive harm.

VOC Content

0 lbs/gal or 0 g/L, less water and exempt solvents.

**For medical emergencies only,
call ChemTrec (1-800-424-9300).**

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