

F-77 CONSTRUCTION GROUT

Description

ProSpec® F-77 Construction Grout is a high strength, non-metallic, cementitious structural grout.

Features

- Meets ASTM C 1107 grades A, B & C in plastic and flowable consistencies
- Interior/exterior
- Super plasticized for improved strength
- Pumpable
- Flowable
- Non-shrink
- Meets Corps of Engineers Specification CRD-C 621

Uses

For grouting:

- Column bases
- Equipment bases
- Compressors and generators
- Steel bearing plates
- Rebar
- Crane rails
- Anchor bolts
- Tilt-up panels
- Pumps
- Structural columns
- Sole plates
- Bug hole repair

NOTE: Can be used in repairing voids in concrete due to improper consolidation.

Technical Data				
	Plastic	Flowable	Plastic	Flowable
	(1 gal. water 3.8 L) per 50 lb. (22.7 kg) bag)	(1.1 gal. (4.1 L) water per 50 lb. (22.7 kg) bag)		
Consistency of Flow ASTM C 1107	100-125%	125-145%	Volume Change, % Expansion ASTM C 827	
			At final set	+0.40 +0.20
Set Time ASTM C 191			ASTM C 1090	
Initial set	4.5-5.5 hrs.	5.0-6.0 hrs.	3 days	+0.02 +0.10
Final set	6.5-7.5 hrs.	6.5-7.5 hrs.	7 days	+0.02 +0.10
Compressive Strength ASTM C 109			14 days	+0.02 +0.10
24 hours	>2,500 psi (17.2 MPa)	2,500 psi (15.2 MPa)	28 days	+0.02 +0.10
3 days	>4,500 psi (31.0 MPa)	4,450 psi (30.7 MPa)	Slant Shear Bond ASTM C 882	
7 days	>6,500 psi (44.9 MPa)	5,700 psi (39.3 MPa)	28 days	Plastic >3,000 psi (20.7 MPa)
28 days	>8,000 psi (55.2 MPa)	7,000 psi (48.3 MPa)	Test results obtained under controlled laboratory conditions. Reasonable variations can occur due to atmospheric and job site conditions.	

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Preparation

1. Clean area and remove all unsound concrete, grease, oil, paint and any other foreign materials that will inhibit performance.
 2. Surface should be saturated with water 4-24 hours prior to placement.
 3. Surface should be Saturated Surface Dry (SSD) with no ponding at time of placement.
 4. Provide air relief holes in forms where necessary.
 5. Release agents are recommended for pre-treating wood surfaces that can absorb moisture.
- NOTE: It is the responsibility of the installer/applicator to ensure that test areas are performed to determine the suitability of the product for its intended use.

Refer to

- ACI 351.R-99 Report on Grouting between Foundations and Bases for Support Equipment and Machinery.

Mixing

1. Desired grout consistency:
Plastic (trowel consistency):
1 gallon water (3.8 L) per 50 lb. bag (22.7 kg)
Flowable (pumping consistency):
1.1 gallon water (4.2 L) per 50 lb. bag (22.7 kg).
 2. Add dry material to the required amount of clean potable water while mixing.
 3. Mix mechanically with a high torque electric drill not to exceed 600 r.p.m. with a paddle type mixing blade or an appropriately sized mortar mixer.
 4. Mix for 2-3 minutes to ensure a uniform lump free consistency and place immediately.
 5. Addition of cold water at high temperatures or warm water at low temperatures will aid in adjusting the mix temperature.
- NOTE: The water quantities shown are approximate and may vary slightly with type of equipment and application conditions.

Placement

1. Shut down nearby machinery prior to placement. Avoid vibration for 24 hours after placement.
2. Use a mixer large enough to permit continuous placement before any part of the grout has set.
3. Provide vent holes where necessary.
4. Pour and place grout from one side of form to eliminate air voids.
5. A rod, chain or trowel may be used to assist in compacting the grout and eliminating air voids.
6. Confine grout to ensure minimum surface exposure.
7. For placements greater in depth than 4" (102 mm), preblend 25 lbs. (11.3 kg) of washed clean SSD (saturated surface dry) 0.37" (9 mm) graded aggregate per 50 lb. (22.7 kg) bag.
8. Forms may be removed after grout has hardened to an initial set.

Curing

Wet cure exposed surface for a minimum of 3 days or apply ProSpec® Curing Compound on exposed surface after final set (6 to 7 hours).

Refer to

- ACI 308 Standard Practice for Curing Concrete



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Color

Gray

Yield

50 lb. bag = 0.45 cu. ft. (12.7 L)

Packaging

50 lb. (22.7 kg) bag

Shelf Life

One year from date of manufacture.

Best Performance

- Apply when air or substrate temperature is between 40° F (4° C) and 100° F (38° C).
 - Retemper without adding additional water.
 - Do not add any materials other than clean potable water.
 - Avoid adding excessive amounts of water.
 - For installations where acids and sulfates are present, a protective coating is required.
 - Do not use vibrators in placing the grout.
 - Do not use in applications of high dynamic loading
- NOTE: Proper application and installation of all ProSpec products are the responsibility of the end user.

Caution

KEEP OUT OF REACH OF CHILDREN AND ANIMALS. Product is alkaline and may burn or irritate upon contact with eyes or skin. Do not take internally. Use of safety goggles, rubber gloves and dust respirator is

recommended. Avoid prolonged contact with clothing. This product contains crystalline silica. Take measures to contain and reduce dust. Prolonged exposure to crystalline silica may cause silicosis or other serious delayed

lung injury. Avoid breathing dust. For prolonged exposure wear a respirator approved for protection against crystalline silica dust. Crystalline silica has been classified by IARC and NTP as a carcinogen.



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First Aid

In case of eye contact, flush thoroughly with water for at least 15 minutes and SEEK IMMEDIATE MEDICAL ATTENTION. For skin contact, wash thoroughly with soap and water. If swallowed,

SEEK IMMEDIATE MEDICAL ATTENTION. For additional information, call Bonsal American at 704-525-1621 or CHEMTREC at 800-424-9300 or 703-527-3887 outside of the USA.

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

LIMITED 1 YEAR WARRANTY FROM DATE OF MANUFACTURE: Bonsal American warrants that this product and the materials used therein meet or exceed the applicable standards listed and enforced at the time of manufacture. Bonsal American will replace any product or part which proves defective due to quality of ingredients used or due to the manufacturing process itself. This Warranty shall apply only if the product is used in strict accordance with applicable specifications and instructions provided by Bonsal American for its use, and Bonsal American shall not be liable otherwise. Replacement of any defective product, or, at Bonsal American's option, refund of the purchase of any defective product shall be the buyer's sole remedy under this Warranty, and Bonsal American shall in no event be liable for any damages in excess of the purchase price of the defective product. BONSAL AMERICAN SHALL IN NO EVENT BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL OR SPECIAL DAMAGES INCLUDING LOSS OF PROFITS OF ANY KIND. Product demonstrations are done for illustrative purposes only and do not constitute a warranty or warranty alteration of any kind. This Warranty constitutes the sole warranty given by Bonsal American in connection with this product. No modification of this Warranty in favor of any buyer shall be valid unless given in writing and signed by an officer of Bonsal American. Bonsal American has authorized no person to make or give any other warranties or representation, oral or written on its behalf. IN PARTICULAR, THERE ARE NO IMPLIED WARRANTIES, INCLUDING WITHOUT EXCEPTION WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

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8201 Arrowridge Blvd. Charlotte, NC 28273 • www.prospec.com • E-Mail: prospec@oldcastleapg.com