

C-1107 CONSTRUCTION GROUT

Description

ProSpec® C-1107 Construction Grout is a high strength, nonmetallic, cementitious structural grout.

Features

- Exceeds ASTM C 1107
- Interior/exterior
- Pumpable
- Flowable
- Non-Shrink
- Non-Corrosive
- Meets Corps of Engineers Specification CRD-C 621

Uses

For structural grouting and general purpose structural grouting:

- For use above, at or below grade
- Column bases
- Anchor bolts
- Equipment bases
- Tilt-up panels
- Compressors, generators and pumps
- Steel bearing plates
- Structural columns
- Rebar anchoring
- Sole plates
- Crane rails
- Bug hole repair

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

Technical Data							
	Plastic	Flowable	Fluid		Plastic	Flowable	Fluid
Mixing Water	3.1 qts.**	3.4 qts.**	4.1 qts.**	Bleeding and Expansion (%)			
Set Time ASTM C 191				ASTM C 940			
Initial set	3 hours	5.5 hours.	7.5 hours	Expansion	0.000	0.625	1.250
Final set	4 hours	6.5 hours	8 hours	Bleeding	0.000	0.000	0.000
Compressive Strength ASTM C 109				Early Height Change (% Change)			
24 hours	>4000 psi (MPa)	>3,400 psi (MPa)	>2,600 psi	ASTM C 827			
3 days	>6,100 psi (MPa)	>5,000 psi (MPa)	>4,600 psi	Final Set	0.0 - 2.0%	0.0 - +2.0%	0.0 - 2.0%
7 days	>7,200 psi (MPa)	>6,100 psi (MPa)	>5,100 psi	Height Change (%)			
28 days	>7,900 psi (MPa)	>7,100 psi (MPa)	>6,500 psi	ASTM C 1090			
				24 hours	0.0 - +0.25	0.0 - +0.25	0.0 - +0.25
				3 days	0.0 - +0.25	0.0 - +0.25	0.0 - +0.25
				7 days	0.0 - +0.25	0.0 - +0.25	0.0 - +0.25
				28 days	0.0 - +0.25	0.0 - +0.25	0.0 - +0.25

**Due to normal raw material and manufacturing variations the published water range may be varied ± 5% to achieve published results.

Test results obtained under controlled laboratory conditions.
Reasonable variations can occur due to atmospheric and job site conditions.

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Preparation		Refer to
<ol style="list-style-type: none"> Clean area and remove all unsound concrete, grease, oil, paint and any other foreign materials that will inhibit performance. Surface should be saturated with water 4-24 hours prior to placement. Surface should be Saturated Surface Dry (SSD) with no ponding of water, at time of placement. 	<ol style="list-style-type: none"> Provide air relief holes in forms where necessary. Release agents are recommended for pre-treating wood forming surfaces that can absorb moisture. <p>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.</p>	<ul style="list-style-type: none"> ACI 351.R-99 <u>Report on Grouting between Foundations and Bases for Support Equipment and Machinery.</u>
Mixing		Water Requirements
<ol style="list-style-type: none"> Place 3/4 of desired mixing water, start mixer then slowly add the dry material. After all of the powder has been added, slowly add the remaining 1/4 water until the desired consistency is achieved. 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. 	<ol style="list-style-type: none"> Mix for 3-5 minutes to ensure a uniform lump free consistency and place immediately. Addition of cold water at high temperatures or warm water at low temperatures will aid in adjusting the mix temperature. <p>NOTE: The water quantities shown are approximate and may vary slightly with type of equipment and application conditions.</p>	<p>Desired grout consistency Plastic (trowel consistency) 3.1 quarts of clean potable water per 50lb. bag (22.7 kg) Flowable (pumping consistency) 3.4 quarts of clean potable water per 50lb. bag (22.7 kg) Fluid (pumping consistency) 4.1 quarts of clean potable water per 50lb. bag (22.7 kg)</p>
Placement		Refer to
<ol style="list-style-type: none"> Shut down nearby machinery prior to placement. Avoid vibration for 24 hours after placement. Use a mixer large enough to permit continuous placement before any part of the grout has set. Provide vent holes where necessary. Pour and place grout from one 	<ol style="list-style-type: none"> side of form to eliminate air voids. A rod, chain or trowel may be used to assist in consolidating the grout and eliminating air voids. Confine grout to ensure minimum surface exposure. For placements greater than 4" (76 mm), extend the grout with 25lbs. (11.3 kg) of washed 	<ul style="list-style-type: none"> ACI 351.R-99 <u>Report on Grouting between Foundations and Bases for Support Equipment and Machinery.</u> <p>clean SSD (saturated surface dry) 0.37" (9 mm) graded aggregate per 50lb. (22.7 kg) bag.</p> <p>9. Forms may be removed after grout has hardened to an initial set.</p>
Curing		Refer to
<p>Wet cure exposed surface for a minimum of 3 days or apply a curing compound on exposed surface after final set (6 to 7 hours).</p> <p>Protect from direct sunlight, excessive drying due to elevated temperatures and air movement.</p>		<ul style="list-style-type: none"> ACI 308 <u>Standard Practice for Curing Concrete Wet Cure</u>



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Clean up

Use water to clean all tools immediately after use.

Yield

Neat = 0.41 cu. ft. (11.3 L)

Extended by 50% with pea gravel = 0.58 cubic feet

Packaging

50 lb. (22.7 kg) bag

Shelf Life

One year from date of manufacture.

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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Limitations

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| 1. Apply when air or substrate temperature is between 40° F (4° C) and 90° F (32° C). | 5. For installation where acids and sulfates are present, a protective coating is required. | Note: Proper application and installation of all ProSpec products are the responsibility of the end user. |
| 2. Retemper without adding additional water. | 6. Do not use vibrators in placing the grout. | |
| 3. Do not add any materials other than clean potable water. | 7. Do not use in applications of high dynamic loading. | |
| 4. Avoid adding excessive amounts of water. | | |

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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