

SLAB DOWEL GROUT

Description

ProSpec® Slab Dowel Grout is a non-shrink high compressive strength, non-metallic grout used for placing prefabricated concrete pavements and typical structural grouting applications.

Features

- Over 2500 psi (17.24 MPa) compressive strength in 2 hours
- Meets ASTM C 928, Standard Specification for Packaged, Dry, Very Rapid Hardening Cementitious Materials for Concrete Repair
- Non-shrink
- Special mix design formulated to meet the requirements of the Fort Miller Co. Inc. Super Slab System®
- Excellent bond
- Resists freeze/thaw damage
- High fluid – can be pumped through 1 1/4" grout hole ports
- Cement based, non-corrosive – not a chemical concrete
- Non-metallic
- Conforms to ASTM C 827

Uses

- Specifically designed to complement precast concrete slab placement
- Fill inverted dovetail slots in precast slabs

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

Technical Data

Working Time @ 70° F (21° C)	
30 minutes; pumpable for 20 minutes	
Set Time ASTM C 191 @ 70° F (21° C)	
Initial set	Approx. 35 min.
Final set	Approx. 40 min.
Compressive Strength ASTM C 109 @ 75° F (24° C)	
2 hours	2,500 psi (17.2 MPa)
3 hours	4,000 psi (27.5 MPa)
1 day	5,200 psi (35.8 MPa)
7 days	6,200 psi (42.7 MPa)
28 days	7,500 psi (51.7 MPa)
Test Length Change of Hardened Cement Mortar and Concrete ASTM C 928	
Change (28 days)	ASTM C 928 requirement
Water storage	+0.04% (max. to 0.15%)
Air storage	-0.01% (max. to -0.15%)
Differential	0.05% (max. 0.20%)

Freeze/Thaw Test (using 2" cubes): NY DOT Test Method 701-13F/502-3P		
Mixing water	8.0 qts./100 lbs.	
Method of curing	7 days @ 72° F, 50% RH	
Testing results using a NaCl solution		
	3% NaCl solution	10% NaCl solution
Loss after 25 cycles	No loss (weight gain of 1.01%); Condition of specimens: slight surface popping, 5%	No loss (weight gain of 1.43%); Condition of specimens: no visible degradation
Loss after 50 cycles	no loss (weight gain of 1.51%); Condition of specimens: slight surface popping, 30%	No loss (weight gain of 2.38%); Condition of specimens: slight surface popping, <5%

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



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Mixing

- 1. Mix as close to the area being repaired as possible. Slab Dowel Grout requires only the addition of water.
- 2. Use 4 quarts (3.8 L) per 50 lbs. (22.7 kg). Place the potable water into the mixing container and then while mixing add the grout.
- 3. Slab Dowel Grout can be mixed in a mortar mixer or by using a paddle attached to a heavy duty 1/2" drill (650 r.p.m.).
- 4. Mix for 2-3 minutes to a lump-free consistency.
- 5. Do not retemper or overwater.

Application

Slab Dowel Grout completes the structural connection between adjacent precast concrete slab on grade systems. It is a special pumpable rapid strength mix design for filling and connecting dowels and must completely fill the inverted dovetail slots and do the job that cast in place concrete normally does. It must reach strength quickly and perform as well as cast-in-place concrete. ProSpec Slab Dowel Grout minimizes down time and ensures durability.

Place immediately after mixing working the grout firmly into the sides and bottom of the cavity eliminating air pockets and insuring bond and coverage. ProSpec Slab Dowel Grout can also be placed by pumping. Because of the early strength gain the grout must be pumped rapidly to avoid having the grout set-up in the pump or hose. It is important to pre-test insuring that the technique and equipment is suitable for the task. Install the

ProSpec Slab Dowel Grout by placing the hose nozzle in the back port of each slab until grout exceeds from the port near the joint. Continue pumping until the grout fills the joint. After several slots have been filled, monitor the grout level in previously grouted ports and add material as required.

CAUTION! Do not drive on any freshly grouted slab with any construction equipment or vehicle until the specified grout strength of 2,500 psi (17.2 MPa) has been reached. To do so may compromise future efficiency of load transfer between slabs.

For Super Slab Systems® installations, follow installation instructions as outlined by the Fort Miller Co. Inc. Super Slab System® pertaining to precast concrete placement slab installation (518.695.5000).

Clean Up

Use water to clean all tools immediately after use.

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Best Performance

- Do not re-temper after mixing
- Do not over water or add other cements or additives
- Ideal ambient, surface and material temperatures are in the range of 40° to 100° F (4° to 38° C) for mixing and placing.
- Ideal mixed product temperature at placement is 65-70° F (21° C), where the initial setting time is 35 minutes. Hot temperatures will shorten setting time, while cold temperatures will extend setting time
- Hot Weather: Keep bagged Slab Dowel Grout cool. Mix Slab Dowel Grout using ice water to extend working time
- Cold Weather: Do not use antifreeze or accelerators and keep Slab Dowel Grout warm. Combine the warmed repair material with 90° F (32° C) mixing water

Refer to

- [ACI 305 Standard on Hot Weather Concreting](#)
- [ACI 306 Standard on Cold Weather Concreting](#)

Yield

50 lbs. (22.7 kg) yields approximately 0.45 ft³ (7 m³)
50 lbs. (22.7 kg) extended with 30 lbs. (14 kg) of 3/8" (10 mm) pea gravel yields approximately 0.65 ft³ (10 m³)

Packaging

50 lbs. (22.7 kg) moisture resistant bag

Storage

Keep in cool/dry place unexposed to sunlight and tightly reseal container.

Shelf Life

One year when stored properly in original unopened container.



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Caution

<p>KEEP OUT OF REACH OF CHILDREN AND ANIMALS. WARNING!</p> <p>Contains Portland cement and silica sand. May irritate eyes and skin. Avoid contact with eyes or prolonged contact with skin. In case of contact, flush thoroughly</p>	<p>with water. The wearing of gloves and safety goggles is recommended.</p> <p>In case of eye contact, flood eyes with potable water and call physician. DO NOT RUB EYES. Do not take internally. Crystalline silica sand may cause serious</p>	<p>lung problems. Avoid breathing dust and wear a respirator in dusty areas.</p> <p>Consult Material Safety Data Sheet for further information.</p>
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First Aid

<p>Inhalation: Remove to fresh air</p> <p>Eye Contact: Irrigate eye with water or consult physician if irritation persists.</p>	<p>Skin Contact: Washed exposed skin area with soap and water; consult a physician if irritation persists.</p>	<p>Ingestion: Immediately consult a physician.</p>
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