

COMMERCIAL ANCHOR CEMENT

Description

ProSpec[®] Commercial Anchor Cement is a polymer modified portland cement based anchoring grout.

Features

- Exterior/interior
- Contains corrosion inhibitor
- Exceptional pull out strength
- Resists chloride ion intrusion
- Single component
- Pourable
- Contains no water sensitive materials
- Sealer not required
- Shrinkage compensating
- Non reactive with anodized aluminum
- High early strength
- Sets in 20-25 minutes

Uses

For anchoring:

- Railings
- Guard rails
- Bolts
- Parking meters
- Ornamental iron
- Metal fence posts
- Machinery
- Banisters
- Dowels
- Reinforcing rods
- Structural columns
- Metal signs

Technical Data

Set Time ASTM C 191		Anchor Strength in Concrete ASTM E 488	
Initial set	20-25 minutes	0.50" rod diameter	>12,000 lbs. (5,443 kg)
Final set	30-40 minutes	0.075" rod diameter	>22,000 lbs. (9,979 kg)
Compressive Strength ASTM C 109		1.00" rod diameter	>60,000 lbs. (27,215 kg)
2 hours	>4,500 psi (31 MPa)	Flexural Strength ASTM C 78	
24 hours	>9,000 psi (62 MPa)	28 days air cured	>1,400 psi (9.7 MPa)
7 days	>10,000 psi (69 MPa)	28 days moist cured	>1,700 psi (11.7 MPa)
28 days	>11,000 psi (75.8 MPa)	Tensile Strength ASTM C 190	
Expansion ASTM C 827		24 hr	>485 psi (3.35 MPa)
+0.10%		Modulus of Elasticity ASTM C 469	
Length Change at 28 Days ASTM C 157		28 days	4.93 x 10 ⁶
Air cured	-0.07%	Chloride Permeability ASTM C 1202	
Moist cured	+0.00%	28 days	418 very low
Splitting Tensile Strength ASTM C 496		Freeze/Thaw ASTM C 666 100%	
7 days	>740 psi (5.1 MPa)	Test results obtained under controlled laboratory conditions. Reasonable variations can occur due to atmospheric and job site conditions.	
28 days	>785 psi (5.4 MPa)		

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Preparation	Refer to
<ol style="list-style-type: none"> 1. The concrete or masonry to receive the anchorage must be sound and capable of supporting the fixtures. 2. Drill holes large enough for bolts and washers. 3. For added strength, mushroom the base of the hole with the drill by angling it back and forth. 4. Remove all unsound concrete and any other foreign materials that will inhibit performance. 	<ul style="list-style-type: none"> • ASTM D 4259 <u>Abrading Concrete</u> • ICRI Guideline 03730 <u>Surface Preparation Guidelines for Repair of Deteriorated Concrete Resulting from Reinforcing Steel Oxidation</u> • ICRI Guideline No. 03732 <u>Selecting and Specifying Concrete Surface Preparation for Sealers, Coatings and Polymer Overlays</u> • ACI 355.1R <u>State-of-the-Art Report on Anchorage to Concrete</u> • ACI 201.1R <u>Guide for Making a Condition Survey of Concrete in Service</u> • ACI 224.1R <u>Causes and Repair of Cracks in Concrete Structures</u>
<ol style="list-style-type: none"> 5. Surface should be brought to a saturated surface dry (SSD) condition with clean potable water. <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>	

Mixing	
<ol style="list-style-type: none"> 1. The maximum recommended amount of water for a flowable mix is: 4 quarts (3.8 L) per 50 lbs. (22.7 kg). 2. Add dry material to the required amount of 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. 	<ol style="list-style-type: none"> 4. Mix a maximum of 3 minutes to achieve a lump free consistency. 5. Mix only amount of material that can be applied within 10 minutes. 6. Addition of cold water at high temperatures or warm water at low temperatures will aid in adjusting the set time.

Placement	
<ol style="list-style-type: none"> 1. Pour a small amount of mixed material in hole. 2. Place fixture to be anchored in the hole and work up and down to eliminate air pockets. 3. Pour balance of mixed material into one side of the hole to ensure uniform flow. 	<ol style="list-style-type: none"> 4. Slightly overfill to taper the material up and around the fixture to protect from oxidation. 5. Allow additional time for installation of heavy equipment.

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Curing

ProSpec[®] Commercial Anchor Cement should be air cured, unless hot and/or drying winds or low humidity are present. Under such conditions, protect by fogging with water after 20 to 30 minutes.

Color

Gray

Yield

119 lbs. (53.9 kg) = 1 cu. ft. (0.02 m³)

50 lbs. (22.7 kg) = 0.42 cu. ft. (1.2 m³)

Packaging

50 lb. (22.7 kg) pail

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).
- Do not add any materials other than clean potable water.
- Use only clean mixing container and tools.
- Do not add excessive amounts of water.
- Do not use for grouting base plates.

- Allow material to harden for at least 60 minutes.
- For heavy equipment, allow 24 hours prior to use or loading.
- Non-anodized aluminum must be protected.

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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