

## V.O. REPAIR MORTAR

### Description

ProSpec® V.O. Repair Mortar is a single component, hydraulic cement mortar that contains a corrosion inhibitor.

### Features

- Superior bond
- Fast setting
- Low shrinkage
- Easy to use just add water
- Excellent overhead hang capability up to 2" (51 mm) without form work
- Low shrinkage
- Integrated corrosion inhibitor
- Water resistant
- Self curing
- Freeze/thaw resistant
- Contains no added chlorides

### Uses

#### Repair of concrete:

- Vertical or overhead surfaces without the need for form work
- Overhead beams
- Parking garage ceilings
- Balconies
- Poured in place, precast, tilt up
- Concrete Walls
- Tunnels
- Manholes

### Technical Data

#### Set Time ASTM C 191 @ 70° F (21° C)

Initial set	Approx. 14 min.
Final set	Approx. 20 min.

#### Compressive Strength ASTM C 109

1 day	2,500 psi (17.2 MPa)
7 days	4,000 psi (27.6 MPa)
28 days	5,000 psi (34.5 MPa)

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

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### Preparation

Evaluation of the substrate by a qualified engineer, architect or contractor is recommended. Clean area and remove all unsound concrete, grease, oil, pain and any other foreign materials that will inhibit performance. Slick or sealed surfaces must be thoroughly roughened.

### Refer to

- ASTM C 4259 [Abrading Concrete](#)
- ICRI Guidelines 03730 [Surface Preparation Guidelines for Repair of Deteriorated Concrete Resulting from Reinforcing Steel Oxidation](#)
- ACI 201.1R [Guide for Making a Condition Survey of Concrete in Service](#)

### Priming

1. Saturate area to be repaired with clean water. Leave no standing water
2. Mix to a slurry consisting of 2 parts by volume of V.O. Repair Mortar with 1 part by volume clean water.
3. Using a mason's brush, scrub the slurry thoroughly into the substrate filling all voids and pores.
4. This slurry should be allowed to dry prior to application of V.O. Repair Mortar.

### Mixing

1. In a clean container, blend thoroughly 3.5 to 4 qts. (3.3 to 3.8 L) of clean water with 50 lbs. (22.7 kg) of V.O. Repair Mortar. For best results, add the V.O. Repair Mortar to the water.
2. This is most easily done by adding the water to a 5-gallon bucket and then adding in the dry material.
3. Using a handheld drill with mixing paddle, mix the V.O. Repair Mortar and the water for about 2 minutes. Mixing V.O. Repair Mortar by hand is not recommended.
4. V.O. Repair Mortar sets quickly.  
NOTE: it is difficult to mix and apply more than about 25 lbs. at one time.

### Placement

1. While slurry is still damp, trowel apply V.O. Repair Mortar.
2. Apply with either a gloved hand or trowel
3. When trowel applying the mortar, start form the outside edge and work in, carefully compacting the material toward the center of the repair area.
4. For vertical surfaces, work in lifts of up to 1 inch (25 mm)
5. Overhead lifts should be 1/2 inch (13 mm) to 3/4 inch (19 mm).
6. Good compaction of the material is necessary to assure product performance.



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### Curing

No special curing required. Protect freshly placed material from severe weather (low humidity, high temperatures, freezing, high winds, rain) using standard concrete practices.

### Color

Gray

### Yield

50 lb. (22.7 kg) bag yields approximately 0.49 ft<sup>3</sup> (0.014 m<sup>2</sup> liters) or 24 sq. ft. at 1/4" thick (2.2 m<sup>2</sup> at 6.3 mm thick)

### Packaging

50 lb. (22.7 kg) bag

### Storage

Always keep in a cool dry place unexposed to sunlight.

### Shelf Life

One year when stored properly in original unopened container.

### Best Performance

- Apply when air or substrate temperature is between 40° F (4° C) and 100° F (38° C).
- DO NOT retemper after 5 minutes of mixing.
- DO NOT over trowel.
- DO NOT apply over substrates that are frozen.
- DO NOT add or mix anything other than clean (potable) water with this product.
- DO NOT add excessive amounts of water.
- DO NOT apply over fresh concrete less than 7 days old.

WARNING: Cracks in the material may reappear due to structural faults in the construction itself. The effectiveness of any repair depends on sound structures, proper evaluation, preparation, application and maintenance.



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### Caution

KEEP OUT OF REACH OF CHILDREN AND ANIMALS. MAY CAUSE SKIN AND EYE BURNS OR IRRITATION. INHALATION IS KNOWN TO CAUSE CANCER OR DELAYED LUNG INJURY.

Avoid contact with eyes and skin. This product contains hydraulic cement and lime. When mixed with water and/or latex, it results

in a solution that is highly alkaline and may burn or irritate the eyes or skin. Wear safety glasses or goggles, protective clothing, shoes, and gloves to prevent eye and skin contact. Do not take internally.

Avoid breathing dust. This product contains crystalline silica. Prolonged exposure to crystalline silica dust is known to cause lung

cancer or delayed lung injury, including silicosis. Take measures to eliminate or control dust while handling or placing this product. Wear a respirator approved for protection against crystalline silica dust.

**WARNING:** This product contains a chemical known to the state of California to cause cancer.

### First Aid

If swallowed, drink one or two glasses of water to dilute. Do not induce vomiting unless directed to do so by medical personnel.

Get immediate medical attention. In case of contact, flush eyes or skin thoroughly for a minimum

of 15 minutes with clean water and get prompt medical attention. Wash clothing and thoroughly clean shoes before reuse.

Read the Material Safety Data Sheet (MSDS) for this product prior to use. For additional

information call the Bonsal American at 704-525-1621.

For emergency information call CHEMTREC at 800-424-9300 or 703-527-3887 (Outside USA).

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.