



## CC DOT REPAIR MORTAR

### RAPID HARDENING CONCRETE REPAIR MORTAR

**ITEM NUMBER** CC DOT REPAIR MORTAR

**DESCRIPTION**

DOT REPAIR <sup>MORTAR</sup> is a cement BASED blend of specialty aggregates and admixtures providing a rapid setting, high strength, durable concrete repair for use on airport runways, taxiways, concrete floors, highway pavements, bridge decks and other applications requiring early resumption of traffic or use. Formulated to meet the requirements of ASTM C928 Packaged, Dry, Rapid Hardening Cementitious Material for Concrete Repair.

DOT REPAIR <sup>MORTAR</sup> is pre-mixed, requiring only the addition of potable water. This unique mortar provides outstanding results and enables the project to be completed more rapidly than with conventional patching & repair materials.

**INDUSTRY USES**

DOT REPAIR <sup>MORTAR</sup> is excellent for all types of concrete repair applications: bridge decks, concrete pavements, concrete joints, airport runways and taxiways, industrial floors, loading docks, general concrete, dowel bar retrofit, pre-stressed and precast. DOT REPAIR <sup>MORTAR</sup> is specifically designed for those applications requiring very rapid strength gain.

**BENEFITS AND FEATURES**

- Made in America
- High early strength – open to traffic in 3 hours
- Low permeability
- Non-corrosive
- Thermally compatible
- Increased durability and freeze-thaw resistance; excellent adhesion; improves flexural strength
- Aggregate extension: Up to 60 % on repairs greater than 2"
- Meets ASTM C 928: Specification for Very Rapid Hardening Cementitious Repair Materials
- Shrinkage compensation minimizes cracking from drying shrinkage
- Ready to use; easily mixed with water on the job-site

**TECHNICAL DATA**

LABORATORY TESTS:	RESULTS
Initial Set Time @ 72°F	45 – 60 Minutes
Final Set Time @ 72°F	70 – 90 Minutes
Working Time @ 72°F	45 minutes
Application Temperature Range	40° - 90°F (4.4° - 32°C)
Bond Strength	24 hours: 1500 psi (10 MPa)
Length Change - dry shrinkage	-0.12 %
Compressive Strength: ASTM C 109	3 hrs. 3,500 psi (24.1 MPa) 1 day 5,200 psi (35.0 MPa) 28 days 8,500 psi (58.0 MPa)

**COVERAGE**

Approx. 0.45ft<sup>3</sup>/50 lb. bag  
0.60ft<sup>3</sup>/50 lb. bag with 50 % extension of 3/8" pea gravel.

**PACKAGING**

50 lb. bag  
3000 lb. bulk bags  
Shelf Life: 1 year in original unopened container  
Storage Conditions: Store in unopened container in a dry and cool area Application Temperature Range: 40° F – 90° F (5° C – 32° C).



## CC DOT REPAIR MORTAR

### **LIMITATIONS**

Apply only when the surface and ambient temperature are 45-50°F (7-10°C) and rising. See Cold Weather Application guidelines, per ACI, for applications in temperatures less than 50°F (10°C). Applications made during temperatures greater than 85°F (29°C) should follow Hot Weather Application guidelines, per ACI.

The minimum required thickness is 1/2 inch (12.6mm).

Do not add more water than specified.

Do not add additional powder from other units

Do not over mix or retemper

Do not featheredge

### **MIXING**

Use CC DOT REPAIR MORTAR at a preconditioned temperature of 71 ± 5° F (22 ± 3° C). Use 4.75 – 5.25 (2.25 – 2.48L) pints of water per 50lb (27.2kg) bag. Mixing must be achieved mechanically using a slow-speed, 3/4 inch (19mm) drill and mixing paddle..

Mix while slowly adding the powder to the water.

Mix up to 4 minutes to a uniform lump-free consistency. Avoid over mixing which could entrap air.

### **APPLICATION**

**Surface Preparation** (See ICRI guidelines)

1. Concrete must be sound and fully cured (28 days).

2. Saw cut the perimeter of the area being patched into a square with a minimum depth of 1/2" (12.5 mm).

3. Remove all unsound concrete and roughen the surface to min. 1/4" profile amplitude.

4. Remove all laitance, oil, grease, curing compounds, and other contaminants that could prevent adequate bond.

5. The concrete substrate should be saturated surface-dry (SSD), without standing water, before application.

6. Apply the mixed material onto the prepared saturated surface-dry (SSD) substrate by trowel or screed. Ensure proper consolidation of the mortar and compaction around reinforcing steel. Minimum application thickness is 1/2" based on a 3/8" max. coarse aggregate. Finish the completed repair, as required, taking care not to overwork the surface.

7. For repairs over 2" deep the material should be extended 50 % by weight with clean, SSD, 3/" pea gravel conforming to ASTM C 33.

### **Reinforcing Steel**

Remove all oxidation and scale from the exposed reinforcing steel in accordance with ICRI Technical Guideline No. 03730 "Guide for Surface Preparation for the Repair of Deteriorated Concrete Resulting from Reinforcing Steel Corrosion."

### **CLEAN UP**

Clean tools and equipment with clean water immediately after use. Cured material must be removed mechanically.

### **CAUTION**

#### Safety Considerations

- Use adequate ventilation.
- Use of NIOSH/MSHA approved dust vapor respirator, safety goggles and protective gloves are recommended.

#### First Aid

- EYE CONTACT: Flush immediately with water for at least 15 minutes. Contact physician immediately.
- RESPIRATORY CONTACT: Remove person to fresh air. If the discomfort persists, breathing difficulty occurs, or if swallowed seek medical attention.
- SKIN CONTACT: Remove any contaminated clothing. Wash skin thoroughly with soap and water. If irritation persists, seek medical attention.

KEEP CONTAINER TIGHTLY CLOSED – KEEP OUT OF REACH OF CHILDREN – NOT FOR INTERNAL CONSUMPTION – FOR INDUSTRIAL USE ONLY

### **LIMITED WARRANTY**

All information provided by Cornerstone Construction Material LLC (CCM) concerning CCM products, including but not limited to, any recommendations and advice relating to the application and use of CCM products, is given in good faith based on CCM's current experience and knowledge of its products when properly stored, handled and applied under normal conditions in accordance with CCM's instructions. In practice, the differences in materials, substrates, storage and handling conditions, actual site conditions and other factors outside of CCM's control are such that CCM assumes no liability for the provision of such information, advice, recommendations or instructions related to its products, nor shall any legal relationship be created by or arise from the provision of such information, advice, recommendations or



## CC DOT REPAIR MORTAR

---

instructions related to its products. The user of the CCM product(s) must test the product(s) for suitability for the intended application and purpose before proceeding the full application of the product(s). CCM reserves the right to change the properties of its products without notice. All sales of CCM product(s) are subject to its current terms and conditions of sale.

Prior to each use of any CCM product, the user must always read and follow the warnings and instructions on the product's most current Technical Data Sheet, product label and Safety Data Sheet which are available at [www.ccmaterial.com](http://www.ccmaterial.com). Nothing contained in any CCM materials relieves the user of the obligation to read and follow the warnings and instruction for each CCM product as set forth in the current Technical Data Sheet, product label and Safety Data Sheet prior to product use.

CCM warrants this product for one year from date of installation to be free from manufacturing defects and to meet the technical properties on the current Technical Data Sheet when used in accordance with the written instructions. User determines suitability of product for intended use and assumes all risks. Buyer's sole remedy shall be limited to the purchase price or replacement of product exclusive of labor or cost of labor.

**NO OTHER WARRANTIES EXPRESS OR IMPLIED SHALL APPLY INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. CCM SHALL NOT BE LIABLE UNDER ANY LEGAL THEORY FOR SPECIAL OR CONSEQUENTIAL DAMAGES. CCM SHALL NOT BE RESPONSIBLE FOR THE USE OF THIS PRODUCT IN A MANNER TO INFRINGE ON ANY PATENT OR ANY OTHER INTELLECTUAL PROPERTY RIGHTS HELD BY OTHERS.**