### **REPAIR & MAINTENANCE**

•TRUSTED QUALITY SINCE 1921• RUST-OLEUM®

## TECHNICAL DATA

### CSP-02

# **REPAIR MORTAR**

## **DESCRIPTION AND USES**

Concrete Saver Pro Repair Mortar is a versatile, single component, microsilica modified repair mortar that contains an integral corrosion inhibitor for concrete repair projects of all types. Requiring only the addition of water, Repair Mortar is a high strength material with an extended working time for ease of placement. It is similar in appearance to concrete and is suitable for use as a topping or repair mortar concrete structures from 1" (2.5 cm) to full depth. Ideal for parking decks, joint repairs, balconies, equipment bases, pavements, beams, and vertical & overhead form & pour repairs.

## PRODUCT FEATURES AND BENEFITS

- Microsilica modified for high strength
- Low permeability with excellent freeze-thaw resistance
- Long working time
- Contains an integral corrosion inhibitor
- Interior or exterior

### PRODUCTS

SKU 392536 DESCRIPTION (Gray) 50 lb. bag

## PRODUCT APPLICATION

# READ ALL INSTRUCTIONS CAREFULLY BEFORE STARTING PROJECT

### SURFACE PREPARATION

Concrete surfaces must be structurally sound, free of loose or deteriorated concrete and free of dust, dirt, paint, efflorescence, oil, and all other contaminants. Mechanically abrade the surface to achieve a surface profile of at least CSP 5-7 in accordance with ICRI Guideline 310.2. Thoroughly clean profiled area. Thoroughly clean any exposed reinforcing steel and apply primer to the reinforcing steel within the repair area. Refer to the primer technical data sheet for full instructions.

### MIXING

All materials should be in the proper temperature range of 60°F (15°C) to 90°F (32°C). Single 50 lb. (22.7 kg) bags may be mixed with a drill and "jiffy" mixer. Use a horizontal shaft, paddle type mortar mixer for mixing multiple bags simultaneously. Add the appropriate amount of water, 0.45 - 0.50 gal (1.7 - 1.9L) per bag, for the batch size and then add the dry product. Mix a minimum of 3 minutes. Mix an additional 2 minutes after adding extra water. If additional pea gravel is to be added, mix an additional 2 to 3 minutes. For deeper repairs over 6" (15 cm), extend Repair Mortar with 15 lb. (6.8 kg) of clean, SSD, 3/8" (9.5 mm) rounded pea gravel (#8, ASTM C33). The pea gravel must be dense and non-absorptive per ASTM C127 and non-reactive (ASR) per ASTM C227, C289 and C1260.

## PRODUCT APPLICATION (cont.)

### APPLICATION

**Placement:** To make repairs, spread with a trowel, come-along, or square tipped shovel to a thickness that matches the surrounding concrete. **Note:** On large floor areas, use screed strips as guides in combination with vibratory screeding to level. Compact and finish by hand or machine trowel. Working time once mixed is approximately 2.5 hours.

**Finishing:** This product is designed for finishing with a float or broom appearance. A steel trowel finish may be applied but timing of the final trowel is critical, and the contractor may have difficulty achieving a smooth finish over a large area. Do not add water to the surface during the finishing operation; use evaporation retarder.

**Curing and Sealing:** To prevent surface cracking, cure the repair with a high solids curing compound. In hot, windy, or direct sunlight situations, re-wet the surface after the curing compound has dried and cover with polyethylene for a minimum of three days. If a curing compound is not desired, wet cure for a minimum of three days.

### CURING

Initial set time is approximately 3 hours. Final set time is approximately 4 hours. Full cure will take approximately 28 days depending on the depth of repair.

### CLEAN-UP

Remove excess material with a cloth and wash with water before the product sets.

### LIMITATIONS

Do not use material at temperatures below 45 °F (7 °C). No heavy traffic until the product has fully cured. Keep repair from freezing until a minimum strength of 1,000 psi (6.90 MPa) is reached.

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## PERFORMANCE CHARACTERISTICS

**NOTE:** The following are typical values obtained under laboratory conditions. Expect reasonable variation under field conditions.

## Compressive Strength (ASTM C109) 2" (50 mm) cubes

 @ 0.5 gal/50 lb. bag

 1 day
 5000 psi

 7 days
 6500 psi

 28 days
 8500 psi

### Compressive Strength (ASTM C109) 3" x 6" cylinder @

 0.5 gal/50 lb. bag

 1 day
 4500 psi

 7 days
 6500 psi

 28 days
 8000 psi

### Freeze/Thaw Resistance (ASTM C666)

300 Cycles - 96% Relative dynamic modulus

### Sulfate Resistance (ASTM C1012)

6 months - +0.028%

### Flexural Strength (ASTM C348)

7 days – 900 psi 28 days – 1050 psi

### Rapid Chloride Permeability (ASTM C1202)

28 days - 1200 coulombs

### Length Change (ASTM C157)

Based on 50% RH @ 73°F (23°C) (3" x 3" x 11" beam specimens were removed from molds @ 24 hours)

28 days -0.073%

### Consistency

Initial slump – 10 inches 30-minute slump – 9.5 inches 1 hour slump – 9 inches

### **Volumetric Resistivity**

28 days - 15,400 ohm-cm

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# **REPAIR MORTAR**

## PHYSICAL PROPERTIES

		REPAIR MORTAR
Composition		Microsilica modified Portland Cement
Solids	By Weight	100%
	By Volume	100%
voc		0 g/l
Mixing Ratio		0.45 - 0.50 gal (1.7 - 1.9L) water per bag
Induction Period		None required
Working Time		Approximately 2.5 hours
Practical Coverage*	50 lb. bag	1" depth – 4.4 sq. ft. 1 1/2" depth – 2.9 sq. ft. 2" depth – 2.2 sq. ft. 3" depth – 1.4 sq. ft. 4" depth – 1.1 sq. ft. 6" depth – 0.7 sq. ft.
Curing Time @ 60-70ºF (16-21°C) and 50% Relative Humidity	Initial Set	Approximately 3 hours
	Final Set	Approximately 4 hours
	Full Cure	Approximately 28 days depending on depth of repair
Storage		Store in dry conditions
Shelf Life		2 years in original, unopened package
Safety Information		See SDS

\*The coverage rates are approximations based on yield of a 50 lb. unit mixed at standard consistency.

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