

4.3.3 RM 800 PC Cement Repair Mortar

Listings, Approvals & Testing Standards

ASTM C 928

4.3.3.2 Material Specifications

Working Time

15 mins at 75°F (24°C)

Set Time (ASTM C 266)

Initial (Hrs:Min): 0:20

Final (Hrs:Min): 0:30

Flexural Strength

(ASTM C 348) 28 Days

900 psi

Compressive Strength

(ASTM C 109)

3 hrs 3000 psi

1 day 6000 psi

28 days 8000 psi

Percentage Length Change

(ASTM C 157)

Air-cured -0.082%

Moist-cured +0.031%

Resistance to deicing salts

(ASTM C 672)

(10% Calcium Chloride Solution)

25 cycles - 1 Rating

Water Absorption (ASTM C 642)

9.8%

Freeze-Thaw Resistance, 3000 cycles

(ASTM C 666, Procedure A)

88% Dynamic modulus

Flow, 5 min (ASTM C 109)

142%

Color

Concrete gray

Splitting Tensile Strength

(ASTM C 496)

7 day 390 psi

28 day 450 psi

4.3.3.1 Product Description

RM 800 PC is a fast setting concrete patching material which exhibits high early strength. RM 800 PC is a self-bonding patching compound blended with special cements and additives. No bonding agents are required. RM 800 PC can accept vehicular traffic in three hours and meets the requirements of ASTM C 928 for packaged, dry, rapid-hardening cementitious materials for concrete repairs.

4.3.3.3 Installation Data

Basic Use

RM 800 PC is suitable for repair of damaged concrete on parking structures, airport runways, warehouse floors and loading docks. It can also be used for setting posts, railing and parking meters.

Product Features

- DOT approved (Tennessee & Mississippi)
- Self-bonding, requires no bonding agents or primers
- Minimizes downtime
- Pre-blended; just add water
- Suitable for vehicular traffic in 3 hours at 70°F (21°C)
- Initial set time 20 minutes, final set time 30 minutes

Coverage

One 50 lb (22.7 kg) bucket yields 0.42 ft³ (0.011 m³) and covers approximately 10 ft² when applied 1/2" (13 mm) thick.

Limitations

RM 800 PC is designed for use on horizontal surfaces in thicknesses from 1/2" to 8".

4.3.3.4 Installation Instructions

Surface Preparation

The damaged area should be prepared by back-cutting, or sawing of a vertical edge. This preparation should be performed in a manner which prevents damage to the surrounding concrete. Provide a minimum depth of 1/2". Loose scale or dust must be removed using compressed air or water blasting, leaving only clean, sound concrete. The area to be repaired should be saturated with water, but there should be no puddles present.

Mixing

- Do Not add excessive amounts of water
- Do Not mix more than can be used in 10 minutes
- Up to 1 lb of cement colorant may be added to color patch

Working time is approximately 10 minutes at 75°F (24°C), and becomes shorter as the temperature increases. Do Not mix more product than you can place in 10 minutes. Clean mixer or mixing paddle with water between mixes and after last mix, to avoid build-up of product.

RM 800 PC Cement Repair Mortar 4.3.3

Application

Air, mix and substrate temperatures should be between 45°F (7°C) and 90°F (32°C) during repair and for 24 hours afterward. Place RM 800 PC in the area to be repaired, filling flush with surrounding concrete, and consolidate during placement by

rodding. Surface is ready for brooming or texturing in 20 to 30 minutes.

- Do Not use in vertical or overhead surfaces

Storage Life

One year from date of manufacture, in original, unopened container.

Maintenance

RM 800 PC may be cleaned with most floor cleaning detergents. Aggressive solvents should be avoided.

CAUTION: Contains Silicon Dioxide, Portland Cement and Calcium Hydroxide.
 Your skin may be sensitive to cement. Wearing rubber gloves is recommended. Avoid contact with eyes or prolonged contact with skin. In case of contact, flush thoroughly with water.
 For eyes, flush with clean water for at least 15 minutes and get prompt medical attention.
 Keep out of reach of children.

Installation Instructions



1. Score concrete around damaged area at a slight backward angle to a minimum depth of 1/2" using Hilti Dry Diamond Blade.



2. Expose fresh concrete surface and chip out edges to a depth of 1/2" using a Hilti Combihammer (Hilti TE 56 suggested) and chisel or bushing head. Remove dust and debris with vacuum or compressed air.



3. Saturate prepared area with water. Add 2 quarts of potable water to an empty 5 gallon pail. Slowly add powdered RM 800PC and mix using a drill (or equivalent) and a mixing paddle (sold below) until free of lumps. Add an additional quart of water, alternating with remaining powder, until entire contents have been thoroughly blended.



4. After removing excess water from prepared area, use a trowel to place mortar and push into all corners and edges.

5. Finish patch with trowel. Protect patch from traffic until cured.

4.3.3.5 Ordering Information

RM 800 PC is packaged in convenient, reclosable plastic pails, containing 50 lb (22.7 kg) of product.

Description

RM 800 PC 50 lb pail

Stainless Steel Paddle Mixer smooth shank specially designed for mortar repair. Use with Jacob's style chuck.



Estimating Formula*

$$\text{Number of Units Required} = (L \cdot W \cdot (D_{\text{avg}} / 12)) / Y_{\text{prod}}$$

L = length of void in feet

W = width of void in feet

D_{avg} = avg. depth of void in inches

Y_{prod} = Yield for product

Estimated Yield for Repair Mortars & Grout (Y_{prod}) in ft³

| Product | Y _{prod} |
|-----------|-------------------|
| RM 800 PC | 0.420 |

* Numbers are approximate and assume no waste.