

# Concrete Repair

**Section 09220 or 09 24 33  
Cement Based Finish (Concrete)**

**PLASTERMIX**

## **PART I: GENERAL**

### **1.01 DESCRIPTION**

Provide labor, materials, equipment and supervision necessary to complete the application of product to the substrate.

### **1.02 QUALITY ASSURANCE**

Products shall be installed by a trained applicator with a minimum of five years experience and meet the requirements of the specifier.

### **1.03 SUBMITTALS**

- A. Manufacturer's current product data bulletin.
- B. The trained applicator shall prepare a test panel of the repair installed on the actual building as a submittal for approval of proper application and adhesion.
- C. The trained applicator shall submit to the specifier a list of five projects that he has completed within the last five years, exhibiting the applicator's skills. The list shall include project name, location, and description of work and completion date.

### **1.04 PRODUCT DELIVERY, STORAGE & HANDLING**

- A. Deliver all products and all accessories in original labeled, sealed, and undamaged containers or bundles.
- B. Store all products in accordance with manufacturer's printed instructions.
- C. Handle products in accordance with manufacturer's printed instructions.

### **1.05 JOB CONDITIONS**

All products shall be applied at substrate and ambient temperatures of 45°F or above. A minimum temperature of 45°F shall be maintained 24 hours after completion of work. Protect products from weather and other damage for a period of 24 hours after installation. Do not apply products to frozen surfaces.

### **1.06 COORDINATION & SCHEDULING**

The work requires close coordination with related sections and trades.

## **PART II: PRODUCTS**

### **2.01 MANUFACTURERS**

The following manufacturers are approved for the project.

**Conproco Corporation**

## 2.02 MATERIALS

- A. K-88 Admix: An acrylic admixture designed to enhance the performance of cement based products.
- B. Plastermix: A Portland cement based finish and dressing for concrete.

## 2.03 PERFORMANCE CHARACTERISTICS

General Physical Properties: The products shall meet or exceed the following performance standards:

### K-88 Admix:

Physical state and appearance		Milky liquid		
Base		Aqueous		
Polymer		100 acrylic		
Odor		Ammoniacal		
pH		>8		
Percent solids by weight		27%		
Density of liquid coatings	ASTM D1475	8.4 lbs./gal.		
<b>Results typical for 3/4 – 3 inch mix</b>		<b>7 Days</b>	<b>14 Days</b>	<b>28 Days</b>
Compressive strength	ASTM C109			
Design mix without K-88 Admix – psi		2725	3375	3725
Design mix with K-88 – psi		3400	4150	4700
Percent increase - %		25	23	26
Tensile strength	ASTM C307			
Design mix without K-88 – psi		95	360	360
Design mix with K-88 Admix – psi		385	390	400
Percent increase - %		30	8	11

### Plastermix:

Physical state and appearance		Fine gray or white powder		
Base		Portland cement		
pH		>12		
Setting time by vicat needle	ASTM C191	Initial 60 minutes – Final 285 minutes		
Percent air by volumetric	ASTM C173	6%		
		<b>7 Days</b>	<b>14 Days</b>	<b>28 Days</b>
Compressive strength – psi	ASTM C109	2900	3000	3400
Tensile strength – psi	ASTM C307	400	500	600

## **PART III: EXECUTION**

### 3.01 GENERAL

- A. Installation shall be performed strictly in accordance with manufacturer’s current product data bulletin.
- B. Examine substrates and conditions under which materials will be installed. Do not proceed with installation until unsatisfactory conditions are corrected.
- C. Coordinate installation with adjacent work to ensure proper sequence of construction. Protect adjacent areas and landscaping from contact due to mixing, handling and application of materials.

### 3.02 SURFACE PREPARATION

Prior to application of products, inspect the substrate for proper cleaning and treatment of structural cracks, texture differences, damage, etc. Work shall not proceed until unsatisfactory conditions are corrected.

### 3.03 MIXING

- A. K-88:  
Shake or stir K-88 until homogeneous. Do not overmix.

B. Plastermix:

1. Add 3 –3/4 quarts of potable water and one quart of K-88 Admix to a clean mixing container.
2. Slowly add one 50 lb. bag of Plastermix and mix to a trowelable consistency. Mix for three minutes taking care to scrape the sides of the container. Adjust with water as needed.
3. Allow to breathe for 1 minute and remix for 1 minute.

**3.04 APPLICATION**

- A. Dampen surface to a surface saturated dry (SSD) condition before application.
- B. Bagging – add additional water, mix to a slurry consistency. Apply with a sponge float to fill all voids and bug holes.
- C. Texture coat – apply with a trowel. Allow material to take up to thumbprint hard. Apply a second coat with a trowel and finish with a sponge float
- D. For spray application, use 1 1/4 quarts of K•88 Admix to approximately 5 quarts of water per 50 lb. bag. Mix to a consistency suitable for a plaster spray gun. Spray on as evenly as possible. Brush out the first coat to fill pores and voids. After the first coat has set, double back with a light spray to achieve final texture.
- E. Do not exceed 1/16-inch total thickness.

**3.05 CURING**

- A. Keep damp with a fine mist of water.
- B. Protect from direct sunlight, wind, rain and frost during the curing period.

**3.06 JOB SITE CLEANUP**

- A. Material left over at the job site by the approved applicator shall be removed.
- B. All adjacent surfaces and materials shall be cleaned.
- C. Any foreign material resulting from the work of the approved applicator shall be removed.

\*\*\*\*\*END OF SECTION\*\*\*\*\*



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