



Product Specification for:
Premium Stucco System
Including: Rapid Set® Eisenwall®
Rapid Set® Eisenwall® 5000
Rapid Set® Stucco Mix

SECTION 09 25 00 – OTHER PLASTERING (PREMIUM STUCCO SYSTEM)

PART I GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the contract, including General and Supplementary Conditions, apply to this section.

1.2 SUMMARY

- A. This section specifies a rapid-setting, non-shrink, high strength, high impact resistant Premium Stucco System that can be scratched and browned as one coat and then color coated the same day. Premium Stucco System consists of 3/4 inch or 1/2 inch basecoat reinforced with metal lath, finished with 1/8 inch of synthetic or conventional stucco finish. System shall either have the high quality graded plaster sand mixed with the premium cement at the job-site or may come pre-blended in a water-proof bag. The system is to be installed on exterior walls of wood, steel, masonry, or concrete construction.

1.3 SUBMITTALS

- A. Substitutions:
[Note to specifier: While this does not belong here, it is shown for your review and inclusion in section 01 25 13.] Requests for substitution must be received by Architect at least 14 days prior to bid opening and shall be accepted only from prime bidders. Request shall include: documentation from an approved independent testing laboratory showing compliance with this specification, record of past performance, list of similar installations, detailed comparison of the qualities of the proposed substitute with the specified product, statement of product costs showing all savings passed to owner if approved, and certification by the contractor that the proposed substitute is in every significant way equal to or better than the specified product.
- B. Manufacturer's certificate of Approved Applicator status or letter from manufacturer stating temporary approval pending jobsite training and

certification.

- C. Mock-Up: Upon request, provide a complete system sample panel of specified size using workmen, equipment, and techniques proposed for use on the project. Sample shall be reviewed for uniformity of depth and thickness, finish color and texture, and overall quality of construction. The panel shall remain on-site throughout the construction process. The approved panel shall become the standard of comparison for finished work for the project. Upon project completion, dispose of the sample panel appropriately. [Note to specifier: If required, include the size of the mock-up.]
- D. Submit 2 copies of product manufacturer's literature and Material Safety Data Sheets (MSDS). [Note to specifier: Add any other required submissions.]

1.4 QUALITY ASSURANCE

- A. References: Comply with the following unless modified by this specification.
 - 1. ASTM C79/C79M-04a Standard Specification for Gypsum Sheathing Board
 - 2. ASTM C109/C109M-02 Standard Test Method for Compressive Strength of Hydraulic Cement Mortars (Using 2-in. Cube Specimens)
 - 3. ASTM C144-02 Standard Specification for Aggregate for Masonry Mortar
 - 4. ASTM C191-04 Standard Test Method for Time of Setting of Hydraulic Cement by Vicat Needle
 - 5. ASTM C596-01 Standard Test Method for Drying Shrinkage of Mortar Containing Hydraulic Cement
 - 6. ASTM C847-95(2000) Standard Specification for Metal Lath
 - 7. ASTM C1063-03 Standard Specification for Installation of Lathing and Furring to Receive Interior and Exterior Portland Cement-Based Plaster
 - 8. ASTM C1328-03a Standard Specification for Plastic (Stucco) Cement
 - 9. ICBO now known as ICC (International Code Council)
 - 10. UBC Uniform Building Code

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Delivery: Deliver bagged materials to jobsite in original, unopened, undamaged containers that clearly show the manufacturer's name, product name, and batch number.
- B. Storage: Store bagged material in a dry area off the ground protected from rain, snow, and other sources of moisture. Protect material from temperature extremes. Store bulk sand in a well drained area on a clean, solid surface. Cover sand to prevent contamination with foreign matter.

PART 2 PRODUCTS

2.1 BASECOAT

A. Bagged basecoat material:

1. Shall be manufactured by CTS Cement Manufacturing Corp., 11065 Knott Avenue, Suite A, Cypress, CA, 90630.
Phone: 800-929-3030 Website: www.ctscement.com
2. Rapid Set® Eisenwall® Cement requiring addition of sand and applied at 3/4 inch.
3. Rapid Set® Eisenwall® 5000 Cement requiring addition of sand and applied at 1/2 inch.
4. Rapid Set® Stucco Mix pre-blended with sand and applied at 3/4 inch or less.
[Note to specifier: In case you require them, here are two other systems for inclusion in this specification that deliver similar impact resistance to the Rapid Set products listed 1) common/lime with fibers and latex-modification and 2) FlexiRock.]

B. Basecoat properties:

1. Shall have an impact resistance exceeding 8,000 mJoules/mm when a 7 day old, 6" square sample mounted on plywood is tested with a Vallens Rebound Pendulum using a 2" ball.
[Note to specifier: This is particularly important on any project where the stucco is subject to physical abuse, such as schools and homes.]
2. Set time per ASTM C191 (Mod.) at 70°F:
Initial set 90 minutes minimum. Final set 150 minutes minimum.
3. Compressive strength per ASTM C109 (Mod.):
6 hour 1000 psi
1 day 2000 psi
28 day 3500 psi
4. Shrinkage per ASTM C596 (Mod.):
28 day -.019% maximum
5. Shall have 18% air content per ASTM C1328.
6. Cement based, rapid-setting, non-shrink, high strength, high impact resistant stucco material.
7. Shall be capable of being scratched and browned in one coat and then color coated the same day.
8. Shall have an ICBO evaluation.
9. Shall be non-metallic with no added chlorides.

- C. Admixtures: Rapid Set Concrete Pharmacy. Add these small, pre-measured packets to the repair material per manufacturer's recommendations to change the properties as shown. [Note to specifier: List only the products that you want to be used on your job.]
 - 1. Set Control® – slows down the set time
 - 2. Fast – speeds up the set time
- D. Sand: Must be clean and free from deleterious amounts of loam, clay, silt, soluble salts and organic matter. Sampling and testing must comply with ASTM C144.
- E. Water: Potable and clean and free from deleterious amounts of silt and dissolved salts.

2.2 Sheathing:

- A. Plywood sheathing of minimum 5/16 inch thickness with exterior glue for studs spaced 16 inches on center, and minimum 3/8 inch thickness with exterior glue for studs spaced 24 inches on center.
- B. ½ inch thick gypsum sheathing board complying with ASTM C 79-92.
[Note to specifier: Select 1. or 2.]

2.3 Lathing Materials: For vertical surfaces per ASTM C847, either:

- A. Self-furring, 1 inch galvanized steel, 20 gauge woven wire mesh. (For 1/2 inch basecoat applications only).
- B. Expanded self-furred galvanized metal lath fabricated from copper bearing steel, with weight of 3.4 pounds per square yard. (For 3/4 inch basecoat applications.)

2.4 Accessories:

- A. All corner reinforcement/aid, casing beads, foundation weep screed, and control/expansion joints shall be ½ inch galvanized steel.

2.5 Fasteners:

- A. Comply with ASTM C1063 or UBC, whichever is more stringent, for type and size of fastener required to rigidly secure materials in place.

PART 3 EXECUTION

3.1 SURFACE PREPARATION

- A. Examine substrate to ensure that finished surfaces will be true, level, and plumb without requiring additional or uneven thickness of coatings. Verify that concrete and masonry are free of dust, loose particles, oil and other foreign matter which would adversely affect the bond of basecoat. Notify the proper authority, in writing, of any discrepancies found in the substrate. Beginning of installation indicates acceptance of existing conditions.
- B. Concrete/Masonry: Apply a bonding/sealing agent to concrete and masonry before application of basecoat in accordance with manufacturer's instructions.

3.2 INSTALLATION

- A. All work shall be performed by skilled craftsmen, experienced in this type of work.
- B. Install Premium Stucco System per manufacturer's guidelines. Comply with UBC except as modified in manufacturer's ICBO.
- C. Weather Resistant Barrier: Install two layers of type D building paper complying with UBC 14-1. Building paper shall be applied horizontally with the upper layer lapped over the lower layer a minimum of four inches. At vertical joints, a minimum lap of six inches is required. Stagger joint spacing of both layers of building paper. Application of the barrier must comply with section 1402.1 of UBC.
- D. Metal lath and accessories: Install per UBC and ASTM C1063, whichever is more stringent.
 - 1. Install trims prior to application of metal lath.
 - 2. Metal lath shall be discontinuous under all control joints and expansion joints providing free-floating panels.
 - 3. Install corner reinforcement/aid at all exterior corners.
- E. Mix and proportion basecoat material per manufacturer's application guidelines. Mixed material should have a temperature of about 70°F. Warmer material will set faster than expected and cooler material will have slower strength gain. Control the mixed temperature by protecting the bags of repair material from temperature extremes and adjust the mixed temperature by using hot or cold water.

- F. Protect adjacent surfaces with drop cloths, waterproof paper, or other means to maintain them free of material splashes, water, and debris.
- G. Apply basecoat by hand trowelling or gun application, in one coat, to 3/4 inch or 1/2 inch thickness (depending on which system is used) using sufficient pressure and mechanical force to embed metal lath, fill all spaces behind metal lath, and provide a mechanical key with metal lath. Basecoat shall be brought out to grounds, straightened to a true surface, and finished with sufficient texture to assure adequate bond with finish coat. Alternatively, basecoat for 3/4 inch system can be applied in two coats, 3/8 inch thick each, with the second coat being applied as soon as the first coat has attained sufficient rigidity to accept the mechanical force of application without damage.
- H. Moist cure basecoat for minimum 2 hours by providing light fog of clean, potable water as needed to maintain wet sheen.
- I. Apply finish coat to 1/8 inch thickness, per manufacturers guidelines/instructions, as soon as basecoat is sufficiently hydrated. Basecoat may require light misting to ensure even suction. Apply finish coat evenly and consistently in order to achieve uniformity in color and texture. [Note to specifier: Add the desired finish coat to this specification.]
- J. Tolerances: Maximum variation from true flatness: 1/8 inch in 10 feet.
- K. Complete all work in the same plane and panel each day. Do not stop short, such as at expansion joints, etc.

3.3 CLEAN UP

- A. Clean excess material including overspray and splatter from surrounding areas immediately.
- B. Clean mixer, equipment, and tools immediately after use. Do not allow buildup of hardened repair material in the mixer, since this creates inefficient mixing and the heat generated accelerates later batches.
- C. Remove all trash and protective masking. Clean material from joints. Leave the work area in a clean, orderly state.

END OF SECTION