



UltraKote Cementitious Finish System

Specification

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. UltraKote™ Exterior Wall System: One Coat Stucco, Acrylic Primer, Cementitious Finishes and Protective Coatings

1.02 RELATED SECTIONS

- A. Concrete 03300
- B. Masonry 04200
- C. Plywood 04500
- D. Cold-formed metal framing: Light gauge load-bearing metal framing. 05400
- E. Rough carpentry: Wood framing. 06100
- F. Building paper 07260
- G. Sealants 07900
- H. Doors and windows 08000
- I. Metal support systems 09100
- J. Non-load-bearing wall framing: Non-load-bearing metal framing systems. 09110
- K. Metal lath 09206
- L. Gypsum substrates 09250

1.03 SYSTEM DETAILS

- A. UltraKote™ Cementitious Finish System is a stucco system comprised of 3/8" – 1/2" thick UltraKote 1™ (one coat stucco), UltraPrime™ (acrylic primer) or Stucco Conditioner and Santa Fe Sand textured finish or Paint over Santa Fe Spanish Texture.
- B. DESIGN REQUIREMENTS:
 - 1. The system shall be installed in strict accordance with current recommended published details and product specifications from the system's manufacturer.
 - 2. Sealants and backer rod as required at dissimilar materials and expansion joints shall provide a complete watertight system.
 - 3. Minimum slope for all projections shall be 1:4 with a maximum length of 12".
 - 4. Substrates shall be securely fastened with nails, staples or screws.
 - 5. Expansion Joints: location and design of expansion joints is the responsibility of the designer or architect and shall be shown on the project drawings. As a minimum, expansion joints shall be located at:
 - a. Where building expansion joints occur.
 - b. At floor lines in wood frame construction.
 - c. Where the UltraKote™ Finish System abuts dissimilar materials.

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Last Revised : March 2006

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1.04 SYSTEM DESCRIPTION

- A. WEATHER BARRIER:
1. Minimum Grade D building paper (2 layers) complying with federal specifications UUB 790a or asphalt rag felt complying with UL standard number 55-A or other code-recognized equivalent. One layer of Grade D 60 minute paper with one layer of EPS or extruded poly styrene with tongue and groove edges or two layers Grade D 60 minute paper are required by the Uniform Building Code (UBC) for wood based sheathings. Check applicable code and code compliance report for appropriate type.
- B. INSULATION BOARDS:
1. EPS (Expanded Polystyrene) 2' x 8' and 4' x 8' tongue and groove nominal 1.5 lb/ft. that meets ASTM C 578 Type 1 Flame spread less than 25, smoke development less than 450 per ASTM 84. (Note: minimum required thickness is 1 inch and maximum thickness is 1.5").
 - a. Air dried (aged) six weeks prior to installation.
- C. INSULATION BOARD FASTENERS:
1. Galvanized roofing nails with 1" penetration into framing member.
- D. Metal Lath or Woven Wire:
1. 1" self furred galvanized steel woven wire fabric (minimum 20 gauge) is required. Other laths shall comply with ASTM C933-80 (welded) and ASTM C1032-86 (woven).
 2. Expanded metal lath that meets ASTM C847-93. Furring and self furring requirements shall be as set forth for wire-fabric lath. Minimum weight is 0.665 kg/m² (2.5 lb/yd²)
- E. UltraKote BASE COATS:
1. UltraKote 1™ fiber reinforced concentrate or UltraKote 1™ Premix.
- F. PLASTER SAND:
1. Plaster sand must be clean and free of deleterious amounts of loam, clay, silt, soluble salts and organic matter. Sampling and testing must comply with ASTM C144. The graduation of the plaster sand must be as follows:
U.S. Standard Sieve retained by weight: ±2 percent

	Min.	Max.
No. 4	-	0
No. 8	0	10
No. 16	10	40
No. 30	30	65
No. 50	70	90
No. 100	95	100

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1.04 SYSTEM DESCRIPTION (cont.)

- G. WATER: Clean and potable with no foreign material.

- H. PRIMER/CONDITIONER:
 - 1. UltraKote™ Stucco Conditioner™: A 100% ready mixed clear penetrating sealer with no fillers that will equal the suction of the base coat, providing a smooth even surface for the application of UltraKote™ Finishes.
 - 2. UltraPrime™: A 100% acrylic ready mixed moisture resistant primer and sealer that equal the suction of the base coat, providing a smooth even surface for the application of UltraKote™ Finishes.

- I. FINISHES:
 - 1. Santa Fe Stucco Sand Finish™: A cementitious finish available various sand grits..
 - 2. Santa Fe Spanish Texture Finish™: A premium cementitious finish for achieving various textures such as Lace, Monterrey, weave, cat's face, etc.

- J. Coatings:
 - 1. StuccoKote™: An Epoxy/acrylic decorative and protective exterior paint used over DuraTex™, Santa Fe Finishes (Textured, Smooth, or Sand) and field mixed finishes.
 - 2. DuraKote™: An Epoxy/Acrylic decorative and protective exterior wall coating used over UltraFlex™, Santa Fe Finish (Textured, Smooth, or Sand) A siliconized version of DuraKote™ is available by special order.
 - 3. StretchKote™: An Elastomeric decorative and protective exterior wall coating designed to provide excellent crack bridging and weather resistnace over cementitious surfacs. It is available in a wide varity of colors with a siliconized version available on special order.

PART 2 – ACCESSORIES

- A. TRIM:
 - 1. Casing, corneraid, expansion and/or control joints and weep screed accessories shall meet the requirements of ASTM C1063. Accessories shall be: vinyl, meeting ASTM D1784; galvanized, meeting ASTM A525 and ASTM A526; or zinc, meeting ASTM B69. Zinc accessories are recommended where highly humid or salt-laden service conditions exist.

 - 2. Expansion and/or control joints will be installed as required within the field of the stucco system. Specific locations are the responsibility of first the Project Architect followed in order by the designer, the builder, and then the stucco manufacturer. In the absence of specific locations or system details, expansion and/or control joints should be located in accordance with ASTM C 1063.

- B. FASTENERS:
 - 1. Fasteners shall comply with ASTM C1063 for type and size of fastener to secure material in place.

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PART 3 – EXECUTION

3.01 INSPECTION

- A. SUBSTRATE:
 - 1. Acceptable substrates are tongue and groove EPS (Expanded Polystyrene), water resistive core gypsum sheathing (ASTM C 79), Dens-glass Gold, cement boards, concrete and unit masonry, exposure 1 OSB, exposure 1 or plywood sheathing (grade C-D or better).
 - 2. Substrate is sound, dry, and free from defects or other foreign materials. Inspect substrate to ensure that there are no irregularities greater than ¼" in a 8' span.
 - 3. Sheathings must be securely fastened per applicable local codes.

- B. FLASHINGS:
 - 1. Heads, jambs and sills of all openings must be flashed with a minimum 9" strip of secondary moisture barrier prior to window/door, HVAC, etc., installation.
 - 2. Windows and openings shall be flashed according to design and building code requirements.
 - 3. Individual windows that are ganged to make multiple units require continuous head flashing and/or the joints between the units must be fully sealed.

- C. UTILITIES:
 - 1. The system must be properly terminated at all lighting fixtures, electrical outlets, hose bibs, dryer vents, etc.

- D. DECK:
 - 1. Wood decks must be properly flashed prior to system application (refer to UltraKote™ Detail Drawings).

- E. ROOF:
 - 1. Verify that all roof flashings have been installed in accordance with the guidelines set by the Asphalt Roofing Manufactures Association (ARMA).

3.02 MIXING

- A. UltraKote1™ and Santa Fe Base™
 - 1. Use mixer which is clean and free of foreign substances.
 - 2. Place 5 to 6 gallons of water in the mixer.
 - 3. Add one 80 # bag of concentrate (either UltraKote 1™ or Santa Fe Base™)
 - 4. Add 110 to 120 of ASTM C-144 plaster sand , mix for 3 to 4 minutes at normal mixing speed while slowly adding the remaining 110 to 120 pounds of plaster sand.
 - 5. Let sit for 2-3 minutes then remix and add a small amount of water if necessary to achieve desired consistency.

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- B. Santa Fe Stucco Sand Finish:
1. Place 3 to 4 gallons of clean potable water into a mechanical mixer and add one 90# bag of Santa Fe Sand Finish, and allow the mixer to rotate for 3 to 4 minutes. Gradually add the remaining 3 to 4 gallons to adjust the achieve the desired consistency.
 2. Stop the mixer and allow the mixture to slake for 3 to 4 minutes. This allows the mixture to achieve the initial set.
 3. Start and run the mixer to break this initial set. Small amounts of water can be added to adjust the consistency.
- C. Santa Fe Spanish Texture Finish:
1. Place 2 to 3 gallons of clean potable water into a mechanical mixer and add one 80# bag of Santa Fe Spanish Texture Finish, and allow the mixer to rotate for 3 to 4 minutes. Gradually add the remaining 3 to 4 gallons to adjust the achieve the desired consistency.
 2. Stop the mixer and allow the mixture to slake for 4 to 5 minutes. This allows the mixture to achieve the initial set.
 3. Start and run the mixer to break this initial set. Small amounts of water can be added to adjust the consistency.
- D. Santa Fe Smooth Finish:
1. Place 8 to 9 Quarts of clean potable water into a mechanical mixer and add one 80# bag of Santa Fe Smooth Finish, and allow the mixer to rotate for 4 to 5 minutes.
 2. Stop the mixer and allow the mixture to slake for 4 to 5 minutes. This allows the mixture to achieve the initial set.
 3. Start and run the mixer to break this initial set. Small amounts of water can be added to adjust the consistency.
- E. DuraKote, StretchKote, and StuccoKote:
1. Prior to use stir the pail for about one minute or until a smooth consistency is achieved.
 2. StuccoKote: For Spray applications one pint of water can be added to five gallons of StuccoKote.

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3.03 APPLICATION:

- A. Apply to approved substrates in accordance with manufacturer's instruction and local code requirements.
- B. Apply UltraBond™ substrate bonding agent as per specifications to areas that will receive UltraKote 1™ the same day.
- C. Secondary weather barrier (Not required on unit masonry/non-insulated concrete substrates).
 - 1. Installation should be in accordance with the secondary weather barrier manufacturer's specifications and applicable building code requirements. Alternative methods may be used to wrap openings.
 - 2. The secondary weather barrier shall be free of any damage such as holes or breaks, and must be applied to all surfaces to receive the system.
 - 3. For optimum effectiveness, wrap the secondary weather barrier into rough openings (doors, windows, etc.) to increase the level of protection to the building frame and interior.
 - 4. Coordinate work with other trades to assure proper sequencing, detailing and installation of materials.
- D. Lath:
 - 1. Wire fabric lath
 - a. Wire or lath shall be applied with minimum 1" end laps and side laps.
 - b. Furring crimps shall occur at maximum 6" intervals each way. Furring crimps shall provide a minimum 1/8" clearance from the substrate after installation.

OR

 - 1. Metal Lath:
 - a. The metal lath shall be applied with minimum ½" side laps and 1" end laps.
 - b. When end laps occur between supports, lace or wire ties the ends of the sheets with tie wire.
 - c. Refer to ASTM C1063 for additional information.
 - d. Corrosion-resistant fasteners for lath attachment shall penetrate a minimum of 1" into wood framing.
 - e. Apply the UltraKote Cementitious Finish System over steel framing (minimum No. 20 gauge, 0.912 mm (0.0359" thick). Lath is secured to framing using NO. 8-18, S-12, pan head screws, self tapping screws spaced a maximum of 6" vertical on center to studs.

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- E. Trim Junction:
1. When two pieces of trim abut:
 - a. Set intersection of trim in a minimum 4" bed of trim sealant approved by UltraKote Products, Inc.
 - b. Allow 1/8" – 3/16" gap between the abutting trim pieces. Do not overlap trim.
 - c. Attach the trim in accordance with manufacturer's specifications. True expansion joints must be fastened to the structural substrate.
 2. When two or more pieces of trim intersect:
 - a. The vertical trim piece shall be continuous with all horizontal pieces.
 - b. Miter all corners at intersections of trim.
 - c. Set intersection of trim in a minimum 4" bed of trim sealant approved by UltraKote Products, Inc.
 - d. Allow 1/8" – 3/16" gap between the intersecting trim pieces. Do not overlap trim.
 - e. Attach the trim in accordance with manufacturer's specifications. True expansion joints must be fastened to the structural substrate.
- F. Application over open framing:
1. The weather-resistive membrane is placed over open wood or steel framing spaced a maximum of 24" on center. Wall bracing, in accordance with the applicable code, shall be installed. Square wall corners and parapet corners, metal corner reinforcement is optional. The 2' x 8' and 4' x 8' tongue and groove expanded polystyrene insulation board shall be placed horizontally with the tongue facing upward and temporarily held in place with galvanized staples or roofing nails. Self tapping screws shall be used to temporarily fasten the board to metal framing. Vertical butt joints shall be staggered a minimum of one framing space from the adjacent courses and occur directly over framing.
 2. The lath shall be applied tightly over the insulation board and fastened through the board to wood framing with minimum 2" No. 11 gauge shaft diameter, 11.1 mm head diameter, galvanized roofing nails or No. 16 gauge galvanized staples spaced a maximum of 6" on center with a minimum 1" penetration into wood framing. Staples shall have a minimum 1/2" crown width. Stapling shall be utilized only in wood species having a minimum specific gravity of 0.42. The lath shall be fastened to all steel framing members using No. 8-18, S-12, pan head, self-tapping screws spaced a maximum of 6" on center to all framing. The screws shall penetrate framing at least 1/4". The wire lath shall be applied with minimum 1" end laps.
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- G. UltraKote 1
1. Following surface preparation and installation of the lath and accessories apply the UltraKote 1™ to a thickness of 3/8" to 1/2", completely embedding the lath.
 2. Use rod and darby to level the applied base coat without exposing the lath.
 3. After initial set begins, trowel or float out imperfections, voids or holes.
 4. Damp cure for a least 48 hours by lightly and evenly fogging the surface with water at least twice a day. Direct sunlight, hot temperatures, low humidity and windy conditions may make additional fogging necessary.
 5. Allow UltraKote 1™ to cure a minimum of 7 days prior to finish coat application.
- H. Adhesively attach EPS insulation board shapes over cured stucco using FoamKote™ and ensure that EPS is completely encapsulated in base coat and reinforcing mesh. Mesh must be completely embedded in wet base coat so that no mesh color is visible. Reinforcing mesh from EPS shapes should extend a minimum of 6" onto UltraKote 1™. Base coat should be feathered out onto ShurKote 1™.
- I. UltraPrime™ or Stucco Conditioner:
1. Apply UltraPrime™ to the UltraKote™ 1 with a sprayer at 175 to 225 ft² per gallon. A 3/8" nap roller or a quality latex paint brush but due to the viscosity of the material the footage may be reduced.
 2. UltraPrime™ shall be dry to the touch before proceeding to the UltraKote™ finish coat application.
- J. Ultrarkote Cementitious finish coat:
1. Apply finish directly to the UltraKote 1™ with a clean stainless steel trowel.
 2. Apply and level finish during same operation to minimum obtainable thickness consistent with uniform coverage.
 3. Maintain a wet edge on finish by applying and texturing continually over the wall surface.
 4. Work finish to corners, joints, or natural breaks and do not allow material to set up within an uninterrupted wall area.
 5. Float finish to achieve final texture.

3.04 CLEANING

- A. Clean material from adjacent surfaces as recommended by manufacturer.
- B. Remove surplus material and debris, including field sample, from site.

3.05 PROTECTION

- A. Protect base coat from rain, snow and frost for 48-72 hours following application.
 - B. Protect the cementitious finish coat from rain, snow and frost for 24-48 hours following application.
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