

American Clay Enterprises April 3, 2007 CLAY VENEER PLASTER 09216 - 1 SECTION
09216 - ENJARRE™ SINGLE COAT CLAY VENEER PLASTER

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes:

1. Clay veneer plaster [**over monolithic concrete**] [**over masonry surfaces**] [**over gypsum plaster**] [**over gypsum board**] [**over plaster board**] [**over adobe, cob or straw bale**] [**over foam building form blocks**] for interior application.

2. [Brown coat.]

3. [Sealers and Waxes.]

4. [Textural additives.]

5. Accessories.

B. Related Sections:

1. Section 03300 "Cast-In-Place Concrete".

2. Section 04220 "Concrete Masonry Units".

3. Section 04290 "Adobe Masonry Units."

4. Section 09210 "Gypsum Plaster".

5. Section 09260 "Gypsum Board Assemblies"; for trim accessories.

6. Section 09900 "Paints and Coatings"; for primers and sealers not specified in this section.

7. [Section " ".]

1.2 SUBMITTALS

A. Product Data: Submit manufacturer's literature for each product specified.

B. Selection Samples:

1. Provide samples of manufacturer's standard colors for color selection.

2. Provide samples of standard textured finishes.

C. Verification Samples: Submit sample for each color and textured finish specified in minimum 12-inch by 12-inch sample and on substrate indicated. Apply clay veneer plaster over primed substrate sample. Prepare sample to show substrate, primer, and veneer plaster [**and sealer**] in the layered application process. [**Submit full size sample for masonry substrates.**][**Apply sealer to**

½ of each sample.] In addition to verification of aesthetic qualities, the sample should also be used to demonstrate compatibility and application process.

D. Qualification Data: For qualified Installer.

E. LEED™ Submittals:

1. Credit MR Prerequisite (1 point) 1 Storage and Collection of Recyclables (all of Enjarre's packaging is 100% Recyclable [**Contact Manufacturer for Cotton Bag recycling program**])
2. Credit MR 2.1 and 2.2 (1-2 Points) Construction Waste Management: Include approximate weight of clay veneer plaster to be recycled or donated in Contractor's Waste Management Plan.
3. Credit MR 4 Recycled Content: (1 point) Manufacturers' product data for clay veneer plaster indicating weighted post-industrial recycled content percentage.
4. Credit MR 5.1 and 5.2 (2 points possible) Regional Materials: [**500 mile radius of Albuquerque, NM**] Include clay veneer plaster in the calculations demonstrating that 20% minimum of building materials were manufactured within a 500 miles radius of the project site. Calculations include, cost, percentage of regional components, distance from project to manufacturer and total cost of all material for project.
5. Credit EQ 4.1 Low Emitting Materials: (one point) Manufacturers' product data for sealers, including printed statement of VOC content.
6. Credit EQ 4.2 Low Emitting Materials: (one point) Manufacturers' product data for clay veneer plaster and primer including printed statement of VOC content.
7. Credit ID 1: innovation in Design Surrounding your interior environment with clay that produces negative ions (when it interacts with humidity) will help to neutralize the electromagnetic effect created by appliances and synthetic plastics (latex) [**contact manufacturer for more information about this**]
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1.3 QUALITY ASSURANCE

A. Installer Qualifications: An installer who is a Enjarre experienced applicator.

B. Finish Mockups: Apply mockups [**of at least 100 sq. ft. in surface area**] [**as shown on Drawings**] to demonstrate aesthetic effects and set qualities standards for materials and execution.

1. Apply mockups at location [**indicated on Drawings**] [**as directed by Architect**].
2. Apply mockups for the following applications:
 - Walls and Partitions.
 - Ceilings.
3. Simulate finished lighting conditions for review of mockups.

4. Approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

C. Fade Resistance: Color Pigments, ASTM D4303-03

D. Flame Spread: ASTM E-84.

E. Mold Resistance:

F. Permeability:

1.4 DELIVERY, STORAGE, AND HANDLING

A. Store materials in clearly marked containers in location not subject to direct moisture.

1. Clay veneer plaster mixed with ADD MIX: Store in cool location in container for not more than 10 days. After 10 days, dry mixture thoroughly on plastic sheet.

B. Cover mixed plaster during breaks to retain moisture.

C. Waste Management and Disposal: Surplus clay veneer plaster and clean clay veneer plaster may be used as touch-up materials and extra material for Owner. Clearly mark container as “waste recycled – clay veneer plaster”. Wet clay veneer plaster should be dried thoroughly on plastic sheet and stored in clearly marked container.

1.5 PROJECT CONDITIONS

A. Room Temperature:

1. Maintain temperatures at not less than 50 degrees Fahrenheit or greater than 90 degrees Fahrenheit for at least 3 days before application of clay veneer plaster system[s], continuously during application, and for 3 days after completing application.

2. Bring materials into room 24 hours before mixing to acclimate them to ambient temperature.

B. Ventilation:

1. Distribute heat evenly; prevent concentrated or uneven heat on plaster.

2. Maintain relative humidity levels for prevailing ambient temperature that produces normal drying conditions. Humidity levels should be not more than 50% relative humidity. Use mechanical means to reduce humidity levels if necessary.

3. Ventilate building spaces in a manner that prevents drafts of air from contacting surfaces during plaster application.

4. Upon completion of plaster application, natural or mechanical ventilation may be utilized if specified temperature and humidity levels are maintained.

1.6 EXTRA MATERIALS

Provide Owner with **[insert project requirement here]** percent of clay veneer plaster applied in each color and texture specified.

PART 2 - PRODUCTS

2.1 Enjarre™ CLAY VENEER PLASTER

A. Enjarre™ Clay Veneer Plaster: Proprietary dry blend of clay, fine aggregates, and pigments.

1. Manufacturer: American Clay Enterprises; 8724 Alameda Park Drive NE suite F, Albuquerque, New Mexico 87102. (505) 243.5300 or (866-404-1634).

First Coat: Enjarre™ Clay Veneer Plaster

2. Color[s]

a. [Custom color to match Architect's sample.] (15,000 square ft. minimum)

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b. Calcite

c. Dolostone

d. Nickel

e. Basalt

f. Quartzite

g. Topaz

h. Agate

i. Citrine

a. Finish **[second/upgrade]** Coat:

. **[American Clay Earth Plaster Loma; smooth finish.]**

. **[American Clay Earth Plaster Porcelina; Venetian plaster-like finish will need an intermediate coat of Loma.]**

. **[American Clay Earth Plaster Marittimo; seashell aggregate, faceted finish.]**

.

3. Color additives in the following color[s]:

. **[Acacia.]**

. **[Austin Blush.]**

. **[Baton Rouge.]**

. **[Blue Field.]**

. **[Borrogo Tan.]**

. **[Chocolatte.]**

. **[Chimayo.]**

. **[Cimarron.]**

. **[Colorado Red.]**

. **[Dakota Red.]**

. **[Guadalupe Dunes.]**

. **[Fairfield Green.]**

. **[Havasú.]**

. **[Jasper.]**

. **[Kentucky Moon.]**

. **[Lake Tahoe.]**

. **[Moab Red.]**

- . [Mojave.]
- . [Nantucket Sand.]
- . [Napa Olive.]
- . [Osage.]
- . [Powder River.]
- . [Rio Grande Pecan.]
- . [Sanibel Sunset.]
- . [Santa Fe Tan.]
- . [Savannah Moss.]
- . . [Snake River.]
- . . [Socorro Clay.]
- . [Sugarloaf White accent.]
- . [Sulphur Spring.]
- . [Taos.]
- . [Tucson Gold.]
- . [Verde Valley.]
- . [Wild Horse Smoke.]
- . [Amber Grain accent.]
- . [Bryce Canyon accent.]
- . [Chesapeake Bay accent.]
- . [Georgia Clay accent.]
- . [Maunaloa accent.]
- . [Painted Desert accent.]
- . [Palomino Valley.]

4. Properties:

- Fire-resistant: Non-combustible.
- Non-toxic, non-chemical materials.
- Fade resistant.
- Mold resistant.
- Dust resistant.
- Non-dusting.
- Breathable.
- Paintable and stainable.

5. Aggregate: Calcium carbonate, Mica

6. Color Pigment: Natural oxides and Mineral pigments.

- . Recycled Content by Weight: 72% post-industrial.
- . Water: Potable water.

2.2 PRIMER[S]

A. Textured Primer: American Clay “Sanded Primer” [or “**Sanded Primer Elite**”].

1. VOC content: 0.44 grams per liter.

B. Water-borne primer acceptable to clay veneer plaster manufacturer to be used where indicated in Systems below.

2.3 BROWN COAT(S)

- . **[Fibred cementitious brown coat.]**
- . **[Lime-plaster brown coat.]**
- . **[Site-based mud plaster brown coat.]**
- . **[Gypsum plaster brown coat with American Clay “Sanded Primer Elite.”]**

2.4 SEALERS AND WAXES

A. General:

1. VOC content must meet or exceed the VOC and chemical component limits of Green Seal requirements.
2. Sealer must be compatible with clay veneer plaster.

B. **[Acrylic Masonry Sealer:**

- 1. American Clay Earth Plaster Sealer / Gloss Sealer**
- 2. AFM Safecoat “Watershield” or “Mexi-seal”.**
- 3. or equal product.]**

C. **[Wax: Furniture or paste wax.**

- 1. Bioshield “Floor and Furniture Hardwax.”**
- 2. or equal product.]**

D. **[Oil:**

- 1. AFM “Natural Clear Penetrating Oil.”**
- 2. Bioshield “Penetrating Sealer.”**
- 3. or equal product.]**

E. **[Liquid Potassium or “Water Glass”:**

- 1. AFM Safecoat “Penetrating WaterStop”.**
- 2. Anco Industries Inc. “Stucco Cure”.**
- 3. or equal product.]**

2.5 JOINT REINFORCING MATERIALS

- . Trim Accessories: As specified in Section 09260 “Gypsum Board Assemblies.”
- . Filler: Multi-purpose joint compound.

PART 3 - EXECUTION

3.1 EXAMINATION

Verify that substrate is ready to accept primer and clay veneer plaster finish. Surfaces should be dry and free of dust. Correct substrate conditions prior to clay veneer plaster application process.

3.2 PREPARATION

A. General Preparation for all substrate categories:

1. Scrape off loose or flaking paint or other surface material until a well-bonded surface is exposed.

2. Knock down high points or protrusions of more than 1/16 inch with a wide putty knife, scraper or drywall sanding screen.

3. Clean and fill any mortar joints and depressions deeper than 1/16 inch with a filler that bonds to the substrate, leveling them with the surface.

4. Lightly sand any high gloss or glossy sealed surface with 150 grit sandpaper to provide a "tooth" for the primer.

Test existing paint for lead content prior to sanding. If paint contains lead, follow OSHA procedures.

5. Remove any dust with a vacuum or clean with 10% water based sealer 90% water.

6. Clean surfaces to remove dirt, grease, oil, and other foreign matter and deposits that could impair bond with plaster.

Wash sooty or greasy surfaces with a Tri-Sodium Phosphate (TSP) or equal paint preparation cleaner.

7. Allow surface to dry.

8. Mask adjacent surfaces with painter's tape. Leave tape 1/16-1/8" inch from edge of plaster surface area so that the tape will pull off cleanly.

3.3 GENERAL APPLICATION

A. Application total thickness:

1. Enjarre™ Clay Veneer Plaster

1 coat: 1/16 inch (thickness of two credit cards) to a maximum thickness of 1/4 inch.

[2 coats: 1/8 inch to a maximum thickness of 1/2 inch].

[3 coats: 3/16 inch to a maximum thickness of 3/4 inch.]

3.4 TRIM ACCESSORY AND JOINT REINFORCEMENT INSTALLATION

A. Joint Reinforcement:

1. Tape and bed: Level 1 [**Level 2 for Ceilings**], Gypsum Association GA-214
2. Corner Bead: Prime with two coats of sanded primer.
3. Joints or repairs must be completely dry prior to plaster application.

3.5 PRIMER APPLICATION

- . Apply primer and allow application to dry prior to clay plaster veneer application.
- . **[Double prime outside corners.]**
- . Brush primer along edges (outside corners) of wall,.
- . Let primer dry for 3 hours or until sand “bites back” when hand is rubbed against wall.
- . Brush a second coat of primer over exterior corners which are more vulnerable to nicks and dings.
- . Finished corners should have slight radius.
- .

3.6 MIXING CLAY VENEER PLASTER - GENERAL

- . Prior to adding water [**and ADD MIX**], loosely mix dry clay plaster to even the mix after settling during shipping.
- . Add plaster to water [**ADD MIX and WATER Solution**] and evenly mix.
- . Allow plaster to stand for a minimum of 30 minutes before use. Clay mixture can be mixed 24 hours before application and will remain workable as long as the mixture remains wet. American Clay Enterprises April 3, 2007 CLAY VENEER PLASTER 09216 - 6

If thickening occurs or mixture has completely dried: Add water to bring mixture to a workable consistency. . Mixture consistency should resemble conventional lime and gypsum plasters.

3.7 CLAY VENEER PLASTER GENERAL APPLICATION

- . Do not apply clay veneer plaster on damp surfaces.
- . Apply clay plaster coat and allow it to completely dry, typically 2 to 8 hours. Apply with desired texture indicated in Finish Schedule and allow to dry.
- . If necessary, apply an additional coat to achieve an extremely smooth surface or to hide drywall screws and other surface blemishes. Previous coats should be completely dry and shrinkage complete prior to application of the next coat.
- . For each plaster coat, finish complete walls, panels or ceilings in one operation to avoid the effects of possible variation in color.
- . Lay out on plastic sheet leftover material that remains wet longer than 10 days and allow it to dry completely prior to reuse.
- .

3.8 SPRAY METHOD - GENERAL

- . Mix plaster to consistency required for spray system.
- . Spray mixture for even coverage. Immediately trowel to spread mixture to a consistent thickness.
- . Allow coat to dry.
- . Lightly mist surface to allow for more working time.
- . Let the surface dry.
- . Compress the surface.
- .

3.9 FINISHING/TEXTURING

A. Trowel,(harder and smoother finish): Matte Finish

1. The surface should be dry to the touch and is set enough that a finger pressed into the surface no longer leaves an impression, trowel the plaster surface adding small amounts of water when necessary to smooth and harden the surface.

B. Sponge (harder and rougher finish): Sand Finish

1. When second coat is leather hard (damp but no longer tacky), rub the plaster surface with a dry tile sponge, moving in a circular motion. Sand will rise to the surface.

2. After the surface dries, rework the surface with a barely damp sponge using a circular motion. This will remove most of the loose sand from the surface, compress the wall and even out color variations.

C. Clay Veneer Plaster Finish: [Smooth-troweled finish, unless otherwise indicated] [Textured finish matching sample and approved mockups].

1. Begin finish when final veneer coat is set or dry. The clay veneer plaster should be resistant to light press of finger but does not leave an impression. If the surface has dried, wet the surface with water using a hand pump sprayer and rework the surface as required.

2. To prevent surface cracking, do not over-work or use excess water.

3. [Blended Mottled Color: Apply two colors at the same time during application. The colors will blend evening together. Finish to desired texture.]

4. [Distinct Mottled Color: Apply main color as first coat. When the second coat has set but still damp, wet trowel and sprinkle dry material for second color on the trowel. Trowel to desired effect.]

5. [Smooth Finish: Continue to lightly wet final veneer coat with water and trowel smooth with stainless steel or plastic trowel.]

6. [Skip Trowel: Allow the first coat to completely dry. Mist and apply the second coat, allowing the first coat to be visible in the pattern specified. Smooth the second coat as it sets and trowel to a smooth texture.]

7. [Textured Patterns: Apply a standard coat. While this coat is still workable, use the appropriate texture tool to achieve selected finish. Texture tools include brush, tile trowel, float, stick, hand or any implement that give the texture and pattern selected. After textured area has dried, mist and wipe with a damp sponge to

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compress the surface and eliminate loose pieces of clay veneer plaster. [For extremely coarse, deep textures, apply a stabilizing sealer after the plaster has dried.]

8. Allow veneer plaster to dry completely, a minimum of 12 hours prior to applying sealer.

9. Where clay veneer plaster abuts metal doorframes, windows, and other units in veneer plaster, groove finish coat to eliminate spalling. Calk exposed edges.

3.10 COMPRESSING THE FINISH COAT

A. Compress second plaster coat using either of the following methods:’

1. Trowel,(harder and smoother finish): Matte Finish

- . Lightly mist surface so that it is evenly damp and no water is running down the wall.
- . Re-trowel surface.

2. Sponge (harder and rougher finish): Sand Finish

- . Press lightly in areas that are more damp.
- . Sweep with brush or vacuum remaining sand from the surface after the surface dries.

B. Category I, [Painted or Sealed Surfaces][Slick Surfaces][Gypsum Plasters]:

1. Preparation

- . General preparation.

2. Application:

- . 1st coat: Enjarre
- . Texture: See Finish Schedule at end of Section.
- . Compression.
- . After 14 days, brush or broom walls to remove any loose sand.

C. Category II, [New Drywall][New Blueboard][Unsealed Joint Compound]:

1. Preparation

- . General preparation.
- . Tape and mud Drywall and Blueboard seams; Level 1 [Level 2 for Ceilings] Prime: Sanded primer elite on outside corners two (2) coats.

2. Application:

- . 1st coat: Enjarre.
- . Texture: See Finish Schedule at end of Section.
- . Compression.
- . After 14 days, brush or broom walls to remove any loose sand.

D.

E. Category III, [Unfinished Adobe, Cob or Rammed Earth][Rastra R or Perform Wall TM][Foam Building Form Blocks][Sealed, Painted and Unsealed Brick or Concrete Block][Aerated Autoclaved Concrete Blocks][Unsealed Monolithic Concrete]: [Unsealed Mud Plaster] [Unsealed Lime Plaster] [Unsealed Porous Stone]: 2 coat system.

1. Preparation:

- . General Preparation.

2. Application:

- . 1st coat: Enjarre™.
- . 2nd coat: [Enjarre™ when necessary to achieve desired texture]
- . Compression.
- . Texture: See Finish Schedule at end of Section.

- . After 14 days, brush or broom walls to remove any loose sand.

F. Category IV, Walls with a Combination of Materials: 1 to 4 coat system.

1. Preparation:

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- . Even out suction rates with a water-borne primer first, then re-check wall preparation needs.

2. Application:

- . 1st coat: Enjarre.
- . 2nd coat: [Enjarre™ when necessary to achieve desired texture]
- . Compression.
- . Texture: See Finish Schedule at end of Section.
- . After 14 days, brush or broom walls to remove any loose sand.

3.11 SEALER

A. Sealer: Apply 1-2 coats at [kitchen] [bathroom] [shower] [damp] areas [indicated on Drawings].

1. [Wax Seal: Apply wax directly to the surface with a rag and work into the surface.]
2. [Oil Sealer: Brush or rag-apply in accordance with sealer manufacturer's instructions for porous substrates.]
3. [Acrylic Masonry Sealer: Spray-apply in accordance with sealer manufacturer's instructions for porous substrates.]
4. [Liquid Potassium or "Water Glass": Spray-apply in accordance with sealer manufacturer's instructions for porous substrates.]

3.12 CLEANING

- . Unsealed Clay Veneer Plaster: Clean with barely damp sponge and water. Do not use cleansers.
- . Sealed Clay Veneer Plaster: Clean with damp sponge and water. Do not use cleansers.

3.13 PROTECTION

- . Protect wall [and ceiling] finish from construction damage. Repair damage, remove protection, and clean prior to Substantial Completion.

3.14 REPAIR AND MAINTENANCE

A. Touch-Up:

1. Clay Veneer Plaster Layer: If veneer plaster is still evident underneath affected area, lightly wet the area with a sponge and water.
2. Bonding Failure: If patch is necessary due to a lack of bonding agent on the substrate, apply more primer and then apply the clay veneer plaster. After the veneer plaster has set, use a sponge along the build seam between the patch and original material. Blend the seam with a circular

motion. Smooth the seam with the appropriate tool for the final surface desired and allow patch to dry. If during the smoothing process, there are sponge marks (light streaky areas), use a very damp sponge to remove the streaks.

3. Cracks larger than 1/16 inch: Create a barrier between the crack and patch to keep the crack from translating to the surface. Remove veneer plaster down to the substrate and repair crack. Prime the repaired area as required and complete the repair as indicated above.

B. Maintenance:

1. Lightly wipe with a clean damp sponge or cloth to remove surface stains and marks. Do not use harsh cleaners or abrasive cloths.

2. Surface Cracks: Mist area with vinegar water (1 to 4 ratio of vinegar to water). Smooth with sponge or trowel.

3. Settling Cracks or Mars Larger than 1/16 inch: Fill with new material as specified in "Touch-Up" article above.

3.15 SCHEDULE

A. Location:

1. System: Enjarre

2. Color:

3. Finishes:

- . [Smooth.]
- . [Textured.]
- . [Smooth and textured.]

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- . [Blended mottled color.]
- . [Distinct mottled color.]
- . [Skip-Trowel.]
- . [Match Architect's sample.]
- .

4. Sealer:

B. Location:

1. System: Enjarre [American Clay finish coat upgrade]

2. Color:

3. Finishes:

- . [Smooth.]
- . [Textured.]
- . [Smooth and textured.]
- . [Blended mottled color.]
- . [Distinct mottled color.]

- . [Skip-Trowel.]
 - . [Match Architect's sample.]
 - .
4. Sealer:

END OF SECTION 09216