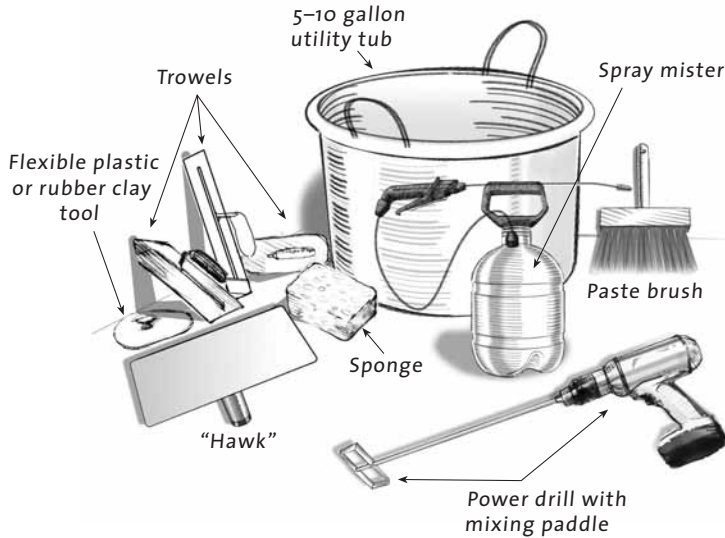




GENERAL APPLICATION TECHNIQUES



HAVE ON HAND:

- Painter's tape
- Drop cloth
- Pump-style garden sprayer or airless sprayer
- 5-Gallon or 15-gallon plastic bucket or tub
- Tile sponge
- Paint roller with covers
- 4" Paint brush for primer
- 5" –Wallpaper or concrete brush
- Trowels: stainless steel trowels (swimming pool style or rectangular) and a lexan finishing trowel (for burnishing)
- Plaster Hawk
- Spade Handle Mixing (1/3 – 1/2 hp) Electric Drill and plaster paddle

PREPARING THE SUBSTRATE

In general, how you prepare a wall for plastering depends on the surface. Some walls will require an undercoat of American Clay Sanded Primer. A few substrates will need a brown coat prior to plastering. Others will require only cleaning and dusting.

SUBSTRATE CATEGORY I

Surfaces requiring an undercoat of American Clay Sanded Primer

- Painted or sealed surfaces (i.e. any painted or sealed surface, including drywall, greenboard and gypsum plasters, as well as recently repaired walls).
- Slick surfaces (i.e. smooth troweled plasters and cements and smooth or polished stone)
- Newly installed drywall and surfaces finished with joint compound
- Gypsum plasters such as Structo-Lite™ or Gypsolite™
- Blueboard

How can I tell if my walls are sealed?

Sealed walls will not allow water to soak in.

Here's a quick test:

1. Using a spray bottle, lightly spray the wall with water.
 2. If water beads on the surface, your wall is sealed.
 3. If the water soaks into the wall surface, it's not sealed.
- Repeat the test on several areas of the wall to make sure any sealer has been uniformly applied.

SUBSTRATE CATEGORY II

Surfaces requiring a base coat or brown coat of fibered cement, lime plaster, or a site-based earth plaster, or drywall or brick or other sheathing recommended by the contractor:

- Unfinished adobe, cob, or rammed earth
- Rastra® or Perform Wall™
- Foam building-form blocks—i.e. Poly-Steel
- Unsurfaced straw bale or light clay
- Aerated autoclaved concrete blocks: i.e., Hebel™ block, e-crete™
- Unsealed monolithic (poured) concrete
- Unsealed, sealed, or painted brick, concrete block or stone

SUBSTRATE CATEGORY III

Surfaces requiring only a cleaning and dusting

- Unsealed sand-finish cement stucco—Fast-Wall™ and fibered cement
- Unsealed mud plasters
- Unsealed lime plaster
- Unsealed porous stone (e.g., cleft or tumbled stone)

GENERAL PREPARATION

Maintain room temperatures between 45 and 90 degrees (F) during application, as well as 3 days before and after it.

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

Turn unopened containers upside down a couple of times to reduce clumping caused by settling during storage.

Protect floors with drop cloths or plastic.

1. Scrape off any loose or flaking paint or other surface material until you reach a well-bonded surface.
2. Knock down high points or protrusions of more than 1/16" with a wide putty knife, scraper, or drywall sanding screen.
3. Clean and fill any mortar joints and depressions deeper than 1/16" with a filler that bonds to the substrate, leveling them with the surface. For assistance in determining the appropriate filler, see the instructions for the substrate.

4. Lightly sand any high-gloss paint with 150-grit sandpaper to provide a "tooth" for the American Clay Sanded Primer.

WARNING: If you scrape, sand, or remove old paint, you may release lead dust. Lead is toxic. Exposure to lead dust can cause serious illness, such as brain damage, especially in children. Pregnant women should also avoid exposure. Wear a NIOSH-approved respirator to control lead exposure. Clean up carefully with a HEPA vacuum and a wet mop. Before you start, find out how to protect yourself and your family by contacting the National Lead Information Hotline at 1-800-424-LEAD or log on to www.epa.gov/lead.

5. Remove any dust with a vacuum or 6-8" paste brush



6. Wash sooty or greasy surfaces with a TSP substitute cleaner of your choice. Let dry.

7. Mask adjacent surfaces with painter's tape.

PREPPING DRYWALL, BLUEBOARD AND SURFACES PREPARED WITH UNSEALED JOINT COMPOUND

If the seams are already mudded, apply an undercoat of American Clay Sanded Primer, to all unsealed mudded surfaces (including fastener patches), let it dry, then undercoat the entire wall surface with American Clay Sanded Primer. When the undercoat is dry, apply the plaster according to "Apply American Clay Earth Plaster".

TAPING AND MUDDING JOINTS

Drywall or blueboard seams must be mudded. You can tape and mud with standard drywall compound or with American Clay Loma. Mudding with American Clay Loma is especially appropriate for chemically sensitive individuals who wish to avoid joint compound.

Notes:

- Fasteners do not need to be mudded.
- Joint compound and plaster mudding does not need to be sanded.
- Ridges and protrusions in the mudding compound up to 1/16" and depressions up to 1/16" are acceptable.

Option 1. Mudding with standard joint compound.

1. Perform General Preparation steps above, as appropriate.
2. Mud the joints with standard joint compound and reinforce them with joint tape (jute, paper or fiberglass scrim), filling the seam depressions level with the surrounding surface.
3. Let joint compound dry completely.
4. Pre-prime only the mudded seams with American Clay Sanded Primer (see directions below) and let this undercoat dry.
5. Apply a second coat of American Clay Sanded Primer—this time to the entire wall surface.
6. Let the undercoat dry.
7. Mix and apply the plaster following the instructions below.

Option 2. Mudding with American Clay Loma.

1. Perform General Preparation steps above, as appropriate.
2. Reinforce the joints with a self adhesive fiberglass mesh

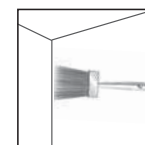
3. Apply American Clay Sanded Primer to all wall surfaces following the directions below.
4. When the Sanded Primer has dried, mud the joints with American Clay Loma (see "Mix the Plaster", below) filling the seam depressions level with the surrounding surface.
5. Let the Loma mudding dry.
6. Mist the plastered seams and apply the base coat of American Clay Earth Plaster to the entire wall (according to "Apply American Clay Earth Plaster").

PLEASE NOTE: This approach could have some cracking that will require repair in new construction as the building settles

APPLY AMERICAN CLAY SANDED PRIMER (Applies only to those surfaces listed in Substrate Category I above. Skip this step if your surface is listed in Substrate Category II or III.)

Surfaces must be clean, dry and free of dust and grease.

1. Stir American Clay Sanded Primer well, mixing all ingredients evenly.
2. Brush American Clay Sanded Primer along the edges of the wall, then roll or brush it on the remaining surfaces. Repeat for each wall you intend to plaster. Make sure all parts of the surface are covered—plaster will not bond to a surface that is not properly undercoated.
3. Let American Clay Sanded Primer dry for **3 hours**. (Your wall may dry more or less quickly depending on temperature & humidity).



Don't forget the corners



Clean up: Clean brush, roller, and roller pan with soap and warm water.

MIX THE PLASTER

Note: For best results, mix the plaster and color 4–8 hours prior to application. Unlike other plasters, the workability of American Clay plasters improves the longer you let the mix stand. You can actually mix our plasters up to 24 hours before you're ready to start the job or at any convenient time 30 minutes or more before application. If the plaster thickens when standing or during application, just add additional water and remix to a pudding-like consistency.

In general, each 50 lb. bag or bucket of American Clay Earth Plaster should be mixed with approximately 3 gallons of water. You may need a bit more or less water to bring the plaster to the correct consistency (similar to pudding).

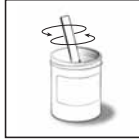
If you are using American Clay Dura-Mix as a hardening agent for Loma or Porcelina, prepare it first by thinning it with up to 3 parts water in the container in which you intend to mix the plaster. Stir well and follow the instructions below. (You can use American Clay Dura-Mix full strength in place of the water—the less you thin the Dura-Mix, the harder and more durable your finished plaster will be.)

1. Measure 1-3/4 gallons of water (or Dura-Mix) into a clean 5-gallon

bucket, a 15-gallon plastic utility tub, or other suitable container. Slowly add about half of one 50 lb. container of American Clay Earth Plaster.



2. Prepare your plaster color by mixing water with the pigment in the American Clay Color Pack container. Stir well to create a smooth, thick paste, adding a little water, if necessary. Empty the paste onto the plaster, rinse the color pack with a bit of the water, and add this rinse to the plaster also.



3. Mix the plaster and color with a heavy-duty 1/2-inch drill equipped with a mixing paddle. Keep the drill at low speed to avoid introducing air into the mix. **CONTINUE TO ADD ALL OF THE DRY PLASTER FROM THE 50LB BAG**, adding additional water until the wetted plaster has the consistency of pudding. The plaster is mixed thoroughly until the pigment is blended evenly throughout the plaster. The mix should have the consistency of pudding.



4. Let the plaster stand for at least **30 minutes**. Before troweling it on the wall, check the plaster, adding water and remixing as necessary to bring it back to the consistency of pudding.

APPLY AMERICAN CLAY EARTH PLASTER

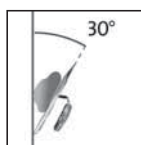
ALL AMERICAN CLAY PLASTERS REQUIRE A BASECOAT OF LOMA For most walls, the recommended application is two thin coats—a base coat 1/32" to 1/16" thick, followed by a 1/32" second coat (about the thickness of a credit card). Over drywall, for example, the base coat should be 1/32" thick. Stuccoes or brown-coated surfaces will require a slightly thicker base coat. For all substrates, do not exceed 1/32" for the second coat.

The sections below describe application with a trowel. If you are using spray equipment to apply the plaster, spray for complete coverage then trowel the surface or texture it to the desired finish. See the *American Clay Instructional Video* for more information.

APPLYING THE BASE COAT

If you've applied an undercoat of American Clay Sanded Primer, do not mist the surface before plastering. Mist all other surfaces lightly with water.

1. Place a comfortable amount of plaster onto a 'Hawk'. Scoop a small amount of plaster from the 'Hawk' onto a trowel.
2. Starting at the bottom of the wall, spread the plaster with the trowel held at a 15° to 30° angle.



3. Work the plaster out on the surface of the wall until you have a smooth, thin coat. Don't rush—American Clay Earth Plasters have long working time and are very forgiving.
4. Using the same techniques, apply plaster in sections, always troweling on new plaster next to a section whose edge is still wet. Do not overwork the base coat—leave a slightly roughened texture on this coat so it has a "tooth" to which the second coat can adhere.
5. Continue applying plaster to all walls. **If you have to break your work into sections, always finish applying the base coat to one complete wall.** Cover the plaster in the bucket during breaks so it retains its moisture.
6. Let the first coat dry. **In no case should you apply the second coat to a first coat that has not dried completely. If the first coat is not completely dry, the second coat is likely to crack.**

APPLYING AND COMPRESSING THE SECOND COAT: LOMA

Compressing American Clay Earth Plaster is important if you wish to have the best results. Compressing the clay compacts and strengthens the surface, reduces trowel marks, and prevents "dusting off". Many of the special effects American Clay plasters will produce are the result of varying the application of the second coat or applying techniques while the second coat is still pliable. Different finishing tools will produce different effects. We have listed the most common procedures below.

Make sure the base coat is dry before applying the second coat.

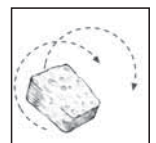


1. Using a pump-style garden sprayer, lightly mist the base coat with water. **Do not over-wet.**
2. Trowel on the second coat (maximum 1/32") rewetting areas of the base coat as needed.

Finishing an American Clay Earth Plaster after the second coat dries compacts and strengthens the surface, reduces trowel marks and prevents dusting.

FOR A MATTE FINISH—

- A. Let the second coat dry until it is damp but firm enough that slight pressure from your thumb won't leave a thumbprint. Then lightly mist the surface and remove trowel marks (as desired) with a trowel held at a low angle (but not flat). Do not over-wet the surface during this step.
- B. If surface cracks appear as the second coat dries, mist them lightly with water and compress the cracks with your trowel.
- C. **Let the second coat dry.**
- D. Using a well-wrung-out (nearly dry) tile sponge and with only light pressure, work the entire wall in overlapping circular patterns, compressing the surface and removing any of the loose sand.



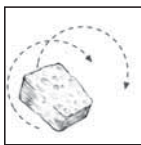
FOR A SANDED FINISH—

A. Let the second coat dry until it is slightly resilient (will leave a thumbprint with mild pressure). Then lightly mist the surface and rub it with a tile sponge or stucco float. Do not over-wet the surface during this step.



B. **Let the second coat dry.**

C. Using a well-wrung-out (nearly dry) tile sponge and with only light pressure, work the entire wall in overlapping circular patterns, compressing the surface and removing any of the loose sand.



FOR A HARD-TROWEL FINISH—



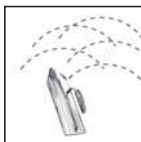
A. **Let the second coat dry** until it is damp but firm enough that slight pressure from your thumb won't leave a thumbprint. Then lightly mist the surface and remove trowel marks with a plastic or stainless steel trowel held at a low angle (but not flat). Do not over-wet the surface during this step.



B. **Let the second coat dry completely.**

C. Then lightly mist the surface of the second coat with a spray bottle.

D. Using a plastic or stainless steel trowel and with steady pressure, re-trowel the surface in broad, overlapping arcs.



E. Repeat steps B, C and D until the desired smoothness and mottling is achieved.

FOR A SKIP-TROWEL FINISH—

A. Lightly mist the base coat with a spray bottle.

B. Trowel on a second thin coat (maximum 1/32") of American Clay Loma, leaving open areas that reveal the base coat in the pattern of your choice. The "skip" pattern can be as "sparse" or as "busy" as you wish, from several inches to a foot or more. As you trowel on the second coat, compress the plaster, but do not cover the areas of the base coat you want revealed. **Let the second coat dry.**



C. Lightly mist the second coat areas and work them with a plastic or stainless steel trowel to smooth the surface or use part "C" from "For a Sanded Finish" above to produce a coarse finish in the second coat.

Regardless of how you have finished the second coat of American Clay Loma, let the surface dry a minimum of 12 hours.

APPLYING AND COMPRESSING THE SECOND COAT: PORCELINA

BURNISHED FINISH—

Compressing the clay with a stainless steel or hard plastic trowel gives a burnished finish. "Burnishing" refers to any process used to give a polished sheen. American Clay Porcelina does NOT require burnishing with fine grit sandpaper. It only requires retroweling.

A. Apply American Clay Porcelina over a base coat of American Clay Loma to a maximum thickness of 1/32", troweling the surface evenly.



B. **Let this second coat dry.**

C. Lightly mist the surface with water and smooth it with a high quality stainless steel or clear plastic trowel.

D. Before the surface dries, retrowel the surface, using arching strokes.

CLEAN UP

Clean any splashed plaster from adjacent unplastered surfaces with a damp sponge. Clean tools with water. Don't discard unused wet plaster—dry it on plastic sheets, rehydrate it at a later date (using the directions above), and use it for touch ups.

SEALING

It is not necessary to seal an American Clay Earth Plaster except on the following surfaces:

- Walls on which you want a low or high-sheen
- Walls that may be exposed to high humidity or splashing water (around sinks and bathtubs) or splattering oils (behind cooktops or stoves).

Note: do not apply American Clay Gloss Sealer over bare plaster, as it will significantly darken the color of the surface. Always apply a first coat of Penetrating Sealer before applying Gloss Sealer.

Even American Clay Penetrating Sealer may cause a slight color change on the plaster surface—always test and let it dry in an inconspicuous area prior to sealing any surface.

APPLYING AMERICAN CLAY PENETRATING SEALER AND AMERICAN CLAY GLOSS SEALER

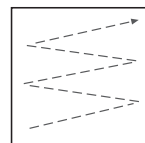
- Walls must be completely dry prior to application.
- Never apply the first coat with a sponge, brush, or roller—lap-marks will show. We recommend an airless sprayer with undiluted sealer but if you use a "pump-style" garden sprayer, dilute the sealer with water at a ratio of 1:1.
- Protect adjacent surfaces that you do not want sealed.
- A minimum of 2 coats of American Clay Penetrating Sealer is recommended for increased hardness and water resistance. A second coat will produce a slight sheen. American Clay Gloss Sealer requires a base coat of American Clay Penetrating Sealer.
- Prior to sealing entire project test in an inconspicuous area to ensure the desired effect.


1. Remove loose material and dust with a vacuum or soft brush. Wear a dust mask if using a brush.




2. Stir well.

3. To minimize drips, spray with a sweeping side-to-side motion, overlapping the spray pattern slightly and working from the bottom of the wall to the top.



4. Allow sealer to soak in for **several minutes**, then lightly blot drips with a sponge. 



5. Let first coat dry for **2 hours**. Apply second coat when dry. 

6. Let the final coat of sealer dry for **72 hours**. 

7. Clean tools immediately with soap and warm water.