Water

Sand

Portland cement

Lime

Preformulated stucco mix

Combine dry stucco mix with water, following the manufacturer's directions for each coat. For the finish coat, mix a test batch first. Add measured amounts of stucco and tint until you find the proper combination. Record the recipe, so you can repeat it for subsequent batches. A finish coat requires slightly more water than other coats.

Working with Stucco

Working with stucco is a craft that's been practiced for hundreds of years. Today's stucco is a combination of portland cement, masonry cement, sand, and (in the finish coat) lime, all mixed with water. The dry ingredients are widely available in premixed bags. The mixture is applied to walls and worked with either a trowel or a brush to achieve the desired effect.

Stuccoing an entire house from scratch is a demanding proposition, but repairing or remodeling small sections is not difficult. Walls that are kept in good condition and "redashed" occasionally with a restorative coat can last for decades.

Stucco can be applied to masonry surfaces, such as concrete block, or over wood or other materials that have been covered with building paper and metal lath. When applying stucco over brick or block, two coats—a ⅜"-thick base coat and a ¼"-thick finish coat—are applied. When applying it over building paper and metal lath, three coats are applied—a scratch coat (⅜"-½" thick), a brown coat (⅜" thick), and a finish coat (⅛" thick).

Follow manufacturer's instructions regarding drying times between coats.
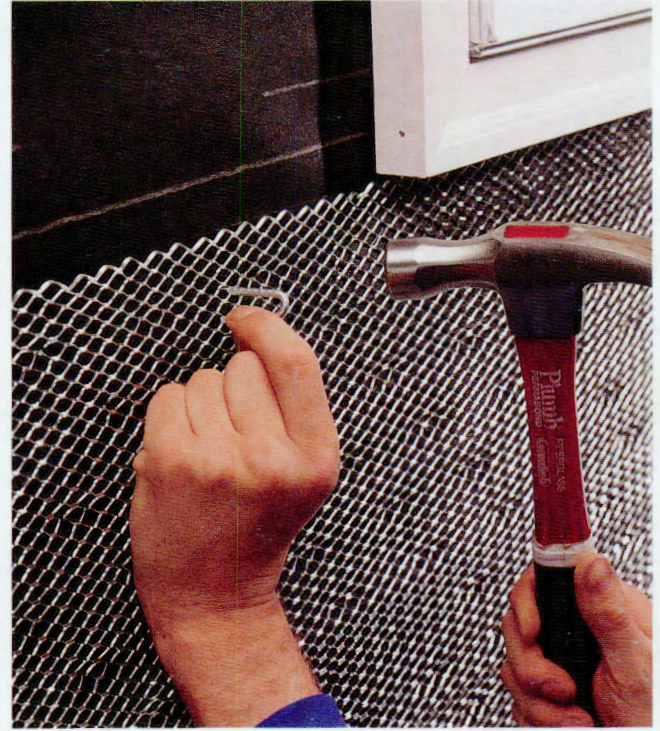
Everything You Need

Tools: cement mixer, mortar hawk, square-end trowel, hammer, stapler, utility knife, aviation snips, shovel, bucket, whisk broom, metal rake.

Materials: 15# building paper, self-furring expanded metal lath, edging, drip screed, 1½" galvanized roofing nails or heavy-duty staples, stucco mix.

Tips for Preparing Surfaces for Stucco

Attach building paper to wood frame construction, using heavy-duty staples or roofing nails. Overlap seams by 4". In some regions, more than one layer of building paper may be required. Ask your local building inspector about code specifications.

Install self-furring expanded metal lath over the building paper with 1½" roofing nails driven into studs every 6". Sheets of lath should overlap 1" horizontally and 2" vertically. Make sure the lath is installed with the rougher side facing out.
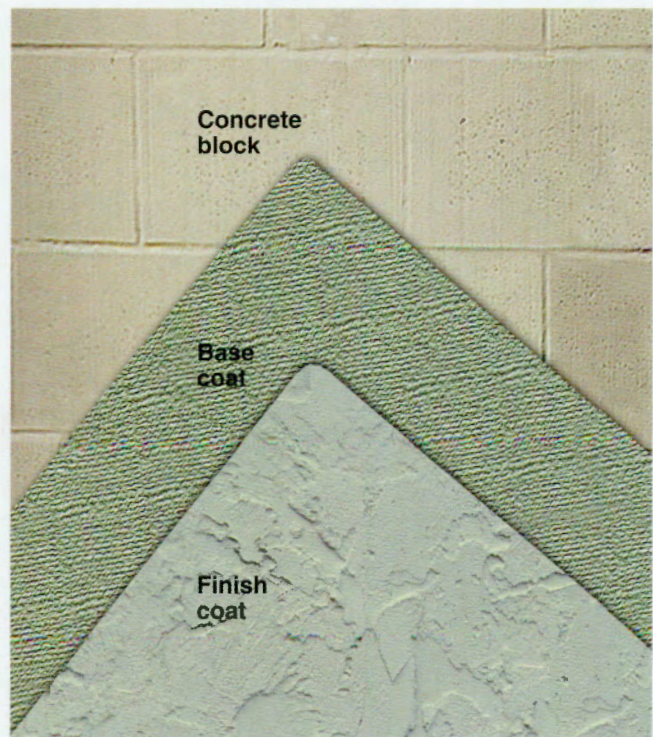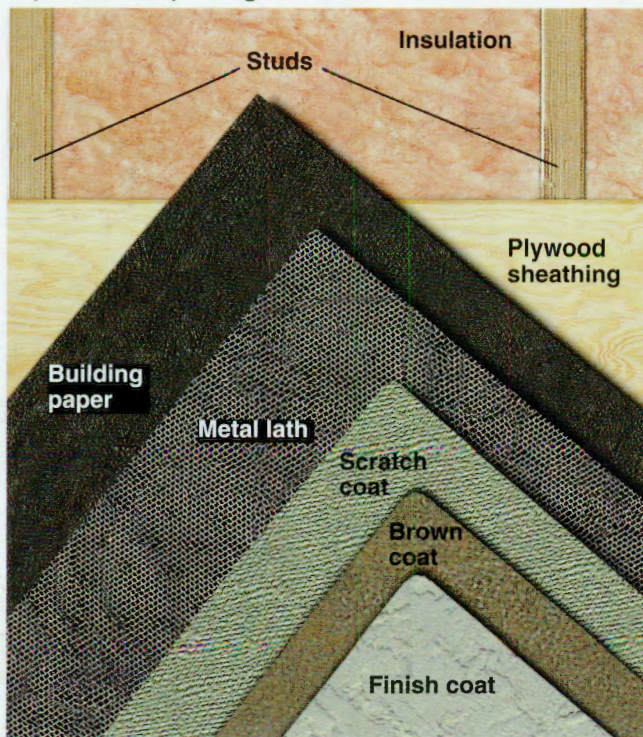
Install metal edging along edges of walls, and drip screed (also called weep screed) at the base to achieve clean corners and edges. Make sure edging is level and plumb, then attach it with roofing nails.

Use aviation snips to trim the excess lath, edging, and drip screed. Wear safety goggles and heavy gloves as protection from sharp edges.

Tips for Preparing Surfaces for Stucco

Surface preparation and the number of coats of stucco vary, depending on wall construction. A wood frame construction or insulation board surface must be covered with building paper and lath, then plastered with three coats of stucco. Stucco can be plastered directly onto concrete block, using two coats.

Tips for Applying Stucco

Use a power cement mixer for large projects. Add water to the mix until it forms a workable paste, following manufacturer's instructions.

Begin at the top or the bottom of the wall. Hold a mortar hawk close to the wall, and press stucco into the lath with a square-end trowel. Press firmly to fill voids, and cover the mesh as smoothly as possible.

Tips for Finishing Stucco

Develop a formula that yields a consistent color and texture. Test finish batches first by applying them to a scrap of wood. Let the samples dry for at least an hour for an indication of their color after the stucco has cured. Record the proper proportions.

Mix the finish batch so it contains slightly more water than the scratch and brown coats. The mix should still stay on the mortar hawk without running.

Achieve a wet-dash finish by flinging, or dashing, stucco onto the surface. Let the stucco cure undisturbed.

For a dash-trowel texture, dash the surface with stucco, using a whisk broom (left), then flatten the stucco by troweling over it.
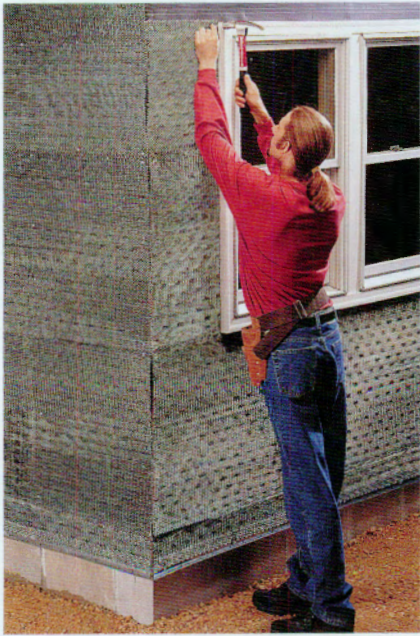
Finishing Walls with Stucco

Refinishing an entire house with stucco is a demanding job not well suited to even the most committed homeowner. It's a job best left to a stucco mason, who can complete most stucco projects in less than a week. But finishing the walls of a small addition, garage, or shed can be quite satisfying. You can use stucco to match existing walls or to create a texture that complements stone, cedar shakes, or other types of siding.

Good wall preparation is the first step for an attractive, durable finish. If the walls are wood, attach building paper and metal lath to create a tight seal and a gripping surface for the stucco. Concrete block walls are already fairly watertight and are rough enough that stucco can be applied directly to the block. During new block construction, make the mortar joints flush with the blocks in preparation for a stucco finish.

Once you've prepared the wall surface, plan to spend several days applying the three stucco coats—scratch coat, brown coat, and finish coat—that guarantee a tight seal and a professional appearance.

If the original walls of your house are finished with stucco, you'll probably need to tint your finish coat to match. Even if the stucco originally applied to your house was white, that finish has probably darkened considerably. Tinting is the best way to match the new with the old. Follow the manufacturer's instructions for the tint you purchase, and plan to experiment until you find a good match. Let each test batch dry thoroughly before you settle on the proportions. Keep notes as you test so you can reproduce the results for each subsequent batch of stucco.

By adding tint to the mixture, you can produce just about any color stucco you desire, from a subtle off-white to a stately blue.

Everything You Need

Tools: cement mixer, wheelbarrow, mortar hawk, mason's trowel, square-end trowel, darby or long wood float, hammer, staple gun, level, utility knife, aviation snips, spade, bucket, fine-tined metal rake.

Materials: building paper, expanded galvanized metal lath (diamond mesh, minimum 2.5 lb.), 1½" galvanized nails, 1½" wire nails, staples, stucco mix, 1½" wire nails, 1 × 2 board.
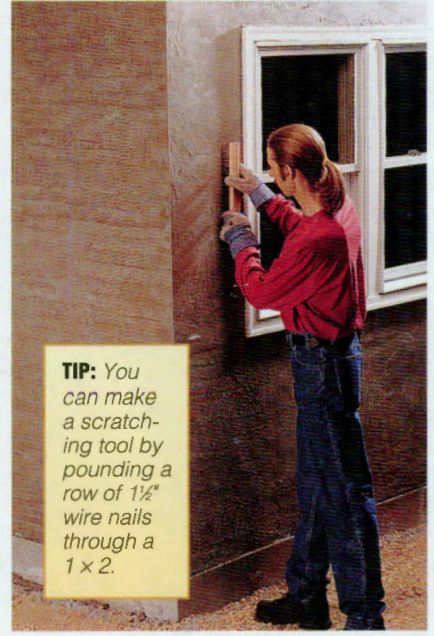
How to Finish Walls with Stucco

1 Staple building paper to the entire wall, and trim excess with a utility knife. Trim the lath and edging to size, using aviation snips, and nail them to the wall. Rub your hand down the lath—it will feel rough when positioned upright. Check the edging for level.

2 Mix the scratch coat by adding water and kneading it with a trowel to form a workable paste. Beginning at either the top or the bottom of the wall, hold the mortar hawk close to the wall and press mud into the mesh with a square-end trowel. Press firmly to fill any voids. Cover the mesh completely.
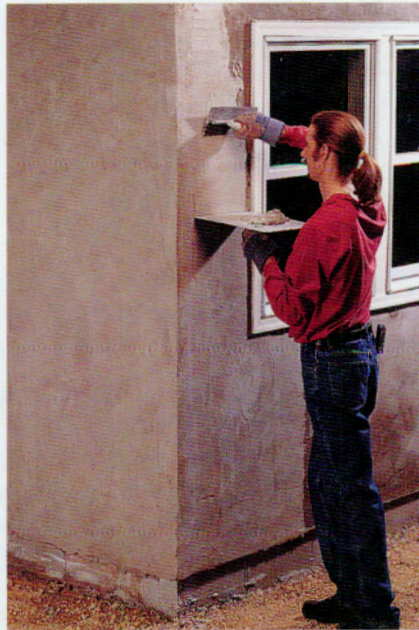
TIP: *You can make a scratching tool by pounding a row of 1½" wire nails through a 1 × 2.*

3 Wait for the scratch coat to harden enough so an impression remains when you press on it. Rough up the surface by making shallow horizontal scratches the length of the wall.

4 Mist the surface occasionally for 48 hours. Mix and apply the brown coat approximately ⅜" thick, then level the entire surface with a wood darby to provide a roughened gripping surface for the finish coat.

5 Mix the finish coat, adding tint as required, and slightly more water than in previous coats. The mix should still sit on the mortar hawk without running. Apply the finish coat so the edging is fully embedded (about ⅛" thick).

6 Finish the surface by throwing stucco at the wall with a whisk broom, then flattening the stucco with a trowel. Wait 24 hours for the finish coat to set up, then mist 2 to 3 times a day for two days, and once a day for another three days.

Mix small batches of dry surface bonding cement, water, and concrete acrylic fortifier, according to the manufacturer's instructions, until you get a feel for how much coating you can apply before it hardens.

An accelerant in the cement causes the mix to harden quickly—within 30 to 90 minutes, depending on weather conditions. The cement can be tinted before application.

Finishing Walls with Cement

Surface bonding cement is a stucco-like compound that you can use to dress up your concrete and cinder block walls. It also adds strength, durability, and water resistance to the walls.

What distinguishes surface bonding cement from stucco is the addition of fiberglass to the blend of portland cement and sand. The dry mixture is combined with water and acrylic fortifier to form a cement plaster that can bond with concrete, brick, or block for an attractive, water-resistant coating.

Before applying the bonding cement, make sure you have a very clean surface, with no crumbling masonry, so the coating can form a durable bond. Because surface bonding cement dries quickly, it's important to mist the brick or block with water before applying the cement so the

cement dries slowly. As with most masonry projects, the need to dampen the wall increases in very dry weather.

The bonding cement can be used on both mortared and mortarless walls, and on both load bearing and non-load bearing walls. However, it is not recommended for walls higher than 15 courses of block.

Everything You Need

Tools: garden hose with spray attachment, bucket, wheelbarrow, mortar hawk, square-end trowel, groover, caulk gun.

Materials: surface bonding cement, concrete acrylic fortifier, tint (optional), silicone caulk.

How to Finish Walls with Surface-bonding Cement

1 Starting near the top of the wall, mist a 2 × 5-ft. section on one side of the wall with water to prevent the blocks from absorbing moisture from the cement once the coating is applied.

2 Mix the cement in small batches, according to the manufacturer's instructions, and apply a ⅟₁₆"- to ⅛"-thick layer to the damp blocks, using a square-end trowel. Spread the cement evenly by angling the trowel slightly and making broad upward strokes.

3 Use a wet trowel to smooth the surface and create the texture of your choice. Rinse the trowel frequently to keep it clean and wet.

4 To prevent random cracking, use a groover to cut control joints from the top to the bottom of the wall, every 4 ft. for a 2-ft.-high wall, and every 8 ft. for a 4-ft.-high wall. Seal hardened joints with silicone caulk.