

SILPRO

CALIFORNIA STUCCO

The Original
Portland Cement-Based
Low Maintenance
Permanent Finish

1/8" - 3/8"

SILPRO Corporation / 2 NEW ENGLAND WAY / AYER, MA 01432-1514 / 800-343-1501 / 978-772-4444 / FAX 978-772-7456 / WWW.SILPRO.COM



Stucco and Brick

Silpro California Stucco® is a Portland cement-based, water-resistant coating that is easy to apply and has the ability to withstand severe climatic conditions. It combines a great variety of textures with low maintenance cost in a permanent finish material.

Available in white or gray. **White California Stucco** can be integrally colored with **Silpro Hawk & Trowel Pigment**, available in 7 earth-tone shades.

ADVANTAGES

- Impact Resistant
- Can be finished in a variety of textures.
- Unlimited Design Flexibility
- Formulated for New England Weather

PROVEN DURABILITY

New England architects, engineers, general and plastering contractors, owners and builders have specified and used **California Stucco** for both new and old construction and renovations for over fifty years.

California Stucco may be used as a finish coat:

- Over scratch and brown coats on metal lath.
- On poured concrete either with or without a base coat.
- Over a base coat on brick and block construction.

STANDARD 3 COAT APPLICATION OVER METAL LATH

Note: Silpro does not manufacture or sell materials used in framing, lathing, expansion joints, scratch or brown coats. Therefore, information in this bulletin relating to these materials and their installation is only to be considered a suggestion. For authoritative recommendations read The Standard Specification for Application of Portland Cement-Based Plaster available from the American Society for Testing and Materials in Philadelphia, PA. (610-832-9585, www.astm.org).

Metal Lath: Attach galvanized metal lath directly to the studding, or attach self-furring galvanized metal lath to sheathing such as plywood, exterior gypsum board, or rigid exterior insulation. Overlap the lath two inches at all joints and attach every 6 inches along the overlap. The lath should be nailed, stapled, or screwed to all studs and plywood every 8 inches in all directions.

Wooden sheathing should first be covered with 15 pound black builders paper. Lap builders paper 4" at edges and ends in shiplap fashion. Staple or nail well.

Expansion Joints: Place expansion joints so the panels contain 150 square feet or less of surface area with no dimension greater than twenty feet. It is especially important to have expansion joints every twenty feet, or less, where decorative bands of **California Stucco** four feet or less in width are being used as

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STANDARD 3 COAT APPLICATION OVER METAL LATH (CONT.)

design elements. This reduces the chance of shrinkage cracking and allows the entire panel to be plastered continuously with no overlaps or cold joints. Expansion joints may be aligned with architectural elements such as windows.

Expansion joints are also necessary wherever two dissimilar substrates or types of construction come together, such as poured concrete and block, or masonry and frame.

Scratch Coat: Mix a scratch or base coat conforming to ASTM C-926 or ANSI A42.2. Acceptable proportions consist of one (1) volume Portland cement, up to one-half (1/2) volume hydrated lime, and sand equal to two and one-half to three and one-half (2 1/2 to 3 1/2) times the sum of cement and lime. Apply the scratch coat so as to completely embed the self-furring, diamond lath. The scratch coat should be approximately 3/8" - 1/2" inch thick and should be left rough (scratch with a tyne fork scratching tool) to accept the brown coat. If the brown coat is not applied the next day, dampen the scratch coat with a fine mist spray of water for two to four consecutive days.

You may let the scratch coat cure for up to six days prior to applying the brown coat.

Brown Coat: Mix a brown coat or leveling coat conforming to ASTM C-926 or ANSI A42.2. Acceptable proportions consist of one (1) volume Portland cement, up to one-half (1/2) volume hydrated lime, and sand equal to three to five (3 to 5) times the sum of cement and lime. Before applying the brown coat, dampen the scratch coat uniformly with a fine mist spray of water. Do not saturate. Let surface dry. Dampen surface uniformly with **Silpro C-21 All Acrylic** mixed 1:1 by volume with clean, potable water before applying the brown coat.

The brown coat should be at least one quarter of an inch thick to bring the total thickness of scratch and brown coats to five-eighths or three quarters of an inch. Float to blend in and create a flat plane.

Dampen the brown coat for two to four consecutive days and **allow to dry for 10 days** before applying the **California Stucco**.

Note: **Silpro's Fiberglass Surface Bonding Cement, FSB**, may be used as the scratch and/or brown coat by adding 20# of clean, coarse "brick" sand per bag of **FSB**. **FSB** contains dry polymer and waterproofing ingredients to fortify and densify the coating.

DIRECT APPLICATION

to Poured Concrete, Brick or Block

SURFACE PREPARATION

Surfaces must be clean and sound. Remove fins, bumps, loose material, mildew or bond-inhibiting materials such as form oils, paints, etc. Use either mechanical means or high-pressure water at a minimum of 3500 psi. The tip of the wand should be close enough to clean and scour the surface.

Previously painted surfaces must be brushed or sand blasted to expose at least 90% of the substrate.

Fill cracks and holes with **Silpro Easy Patch** and **Silpro C-21 All Acrylic** mixed 1:1 by volume with clean, potable water. Exposed metal should be wire brushed or sand blasted free of rust and corrosion and coated with an anti-rust sealer, such as a slurry of **Silpro C-21 All Acrylic** mixed with Portland cement.

SURFACE PREPARATION (CONT.)

All expansion joints should be carried through the finish. Place expansion joints so the panels contain 150 square feet or less of surface area with no dimension greater than twenty feet. It is especially important to have expansion joints every twenty feet, or less, where decorative bands of **California Stucco** four feet or less in width are being used as design elements. This reduces the chance of shrinkage cracking and allows the entire panel to be plastered continuously with no overlaps or cold joints. Expansion joints may be aligned with architectural elements such as windows.

PATCHING AND LEVELING ROUGH CONCRETE

Fill honeycombed areas and form-tie holes in poured concrete with **Silpro Easy Patch** and **Silpro C-21 All Acrylic** mixed 1:1 by volume with clean, potable water. Also apply this mixture to any areas of non-uniformity on the surface to create a flat plane. Just before applying prime the surface with **C-21 All Acrylic** mixed 1:1 by volume with clean, potable water. The base coat of **California Stucco** may be applied within one hour of patching.

LEVELING BRICK AND BLOCK

Eliminate the mortar joints in brick and block by installing a base coat of **Silpro FSB Fiberglass Surface Bonding Cement**, which contains dry polymer and waterproofing ingredients to fortify and densify the coating, or **California Stucco**, mixed per the product instructions.

You could also make your own cement mortar, conforming to ASTM C-926 or ANSI A42.2. Acceptable proportions consist of one (1) volume Portland cement, up to one-half (1/2) volume hydrated lime, and sand equal to two and one-half to three and one-half (2 1/2 to 3 1/2) times the sum of cement and lime. Blend a mixing solution of **C-21 All Acrylic** mixed 1:1 by volume with clean, potable water. Use enough of this mixing solution to achieve a trowelable consistency.

To apply, dampen the wall with a solution of **C-21 All Acrylic** mixed 1:1 by volume with clean, potable water and trowel on enough base coat mix to cover the entire surface. Float to blend in and create a flat plane. Allow the base coat to cure for 24 hours. If the finish coat is not applied the next day, dampen the base coat with a fine mist spray of clean, potable water on the day following application to aid in curing.

MIXING

Mixing Solution Proportions:

White and Gray California Stucco: Mix **Silpro C-21 All Acrylic Admix** 1:1 by volume with clean, potable water. Use approximately 6-7 quarts of this mixing solution per 80 lb bag of **California Stucco**. It is critical to use the same amount of mixing solution per bag. Inconsistent measuring will cause greater-than-normal color variation.

Integrally Colored California Stucco White with Hawk and Trowel Pigments: Check all jars of pigment for the same batch number. Carefully measure the quantity of mixing solution the same way as for the **White and Gray California Stucco** above. Set aside some of this mixing solution. Pour one jar of **Hawk and Trowel** pigment into the remaining mixing solution. Take the reserved mixing solution and pour it into the empty pigment jar until about 2/3 full. Cap and vigorously shake the jar to thoroughly remove all pigment. Empty the contents of the jar,

MIXING (CONT.)

and any remaining mixing solution, into the mix. It is strongly suggested that one person be given the responsibility for measuring and mixing.

Mixing Directions for White, Gray, and Colored

California Stucco:

Mix **California Stucco** with either a mortar mixer or clean container with drill and paddle. Do not use a drum-type cement mixer.

In a clean container: Place the carefully measured mixing solution. Using a slow speed (450-650 rpm) drill and a plaster-type mud paddle, slowly add the **California Stucco** powder to the mixing solution, mixing thoroughly for 2-3 minutes. Allow the mixture to stand for 3-5 minutes, then re-mix, adding a small amount of liquid if necessary.

If a mortar mixer is used, it should have clean rubber blades that are in contact with the mixer walls. Place the measured mixing liquid into the mixer, being exact with the appropriate amount of mixing solution per bag. With blades turning, add the **California Stucco** powder to the mixing solution. Mix for approximately 2 to 3 minutes, until the mixture is lump free and uniform. Allow the mixture to stand for 3-5 minutes and then remix for 1 to 2 minutes.

When mixing by machine, do not overmix. Mixing for too long or at too high a speed may entrap air, giving mix a fluffy feel and reducing strength and bond.

In a mortar pan with a hoe: Place some of the mixing liquid into the pan, add the **California Stucco** powder, add the rest of the mixing liquid, and mix to a lump free, trowelable consistency. Allow the mixture to stand for 3-5 minutes and then remix for 1 to 2 minutes.

Do not mix more material than can be used in less than one hour.

Notes on Colored California Stucco:

A sample of the colored **California Stucco** no smaller than 4 square feet should be placed on the wall or on a sheet of cement board and allowed to cure and dry for approval of the final color and texture by the owner's representative.

Colors will be darker than the **Hawk and Trowel** color chart when first applied. It will take a period of time, depending on temperature, humidity, thickness, and texture of the coating, for the color to lighten. The colors on the chart are only approximate representations of the dry **California Stucco** color. The final color shade depends on application, finishing technique, and curing conditions

*When matching colors from the **Hawk & Trowel Color Chart**, cut the chips off of the chart and view in natural light. Do not match colors under artificial light.*

Because **California Stucco** is like other natural materials, such as wood, brick, and stone, some variation in the color and texture is to be expected. This variation is part of the beauty of a **Stucco** finish and therefore paint-like uniformity should not be expected.

Note: On retaining walls and/or walls where the top of the wall is exposed to weather cover the color coat until dry, then spray on a protective coating of **Silpro Silocks VOC Clear Water-Repellent Treatment**. If the wall is not sealed it may stain, over time, from rain water running down the face.

APPLYING

Uniformly dampen the substrate with a solution of **C-21 All Acrylic** mixed 1:1 by volume with clean, potable water. Do not saturate or allow solution to run down the surface. Do not allow the substrate to dry out.

Under extremely hot and dry conditions, wet the wall with water first, allow the surface to dry, and then uniformly dampen the wall with a solution of **C-21 All Acrylic** mixed 1:1 by volume with clean, potable water.

Trowel: Pinch on a tight coat of **California Stucco** over the entire surface and then immediately double back and apply the second layer to produce a minimum final thickness of 1/8". (This application is considered one coat.) Finish the entire panel in one application with no overlaps or cold joints. Allow the material to start to firm up; float, or texture, with a green, foam float or wood float. All those applying the finish should use the same type of floats and follow the same direction and pattern. Floats should be damp, not wet. Excess water will change the color of the coating.

Spray: The **California Stucco** may need to be adjusted to achieve the proper consistency to be sprayed. It is critical that the same amount of solution be used to adjust each batch.

Pinch on a tight coat of **California Stucco** by trowel. If the first coat is sprayed, it must be back-troweled into the substrate. Spray the finish coat onto the wet bond coat to a minimum thickness of 1/8". (This application is considered one coat.) Keep the nozzle of the spray gun perpendicular to the surface and make steady, even passes. Any variation in spray pattern may result in uneven color and/or texture.

Note: Brick, block, and rough concrete will always require two coats to achieve a uniform color and texture. The coat(s) used to level brick and block is/are considered the base or first coat.

Second Coat: The next day uniformly dampen the substrate with a solution of **C-21 All Acrylic** mixed 1:1 by volume with clean, potable water. Follow directions above for either a trowel or spray application, remembering to pinch on a tight coat and immediately double back with a second coat for a minimum final thickness of 1/8". (This application is considered the second coat.)

Clean up: Clean all tools with water before **California Stucco** hardens. If **California Stucco** hardens on tools it must be mechanically removed.

CURING

C-21 All Acrylic modified coatings do not normally require dampening. Under hot, dry, windy conditions, however, dampen the finished surface uniformly with a fine mist spray of clean, potable water twice a day for 4-5 days.

PROTECT THE FINISH COAT:

- From heavy rain and runoff (as from a roof with no gutters), for 7 to 10 days.
- From direct sun, and hot, dry, and windy conditions by installing a sunshade or windbreak.

LIMITATIONS

- **California Stucco** has been very carefully formulated and contains all the necessary ingredients. Just add the mixing liquid.
- To confirm the suitability of the surface for adhesion of the coating, and that the final appearance and function will be as the owner, architect, and contractor expect, install a 10' x 10' test patch at the maximum designed thickness anticipated on the project and subject it to anticipated service conditions before beginning the entire job.
- **California Stucco** should be applied only when the temperature of the air, surface, and material is above 50° F. (10° C.) and will not fall below that for 48 hours after application. Then keep coated area above 32°F. (0°C.) for a total of 7 days.
- Do not apply if wall temperature is over 90° F.
- Do not attempt to retemper material which has started to set.
- Do not add set-accelerating admixtures.
- Protect the **Stucco** coating from strong winds and/or direct sun during placement and finishing. It is best to work ahead of the sun whenever possible.
- Do not apply color coat immediately before a rainstorm.
- Do not apply the **Stucco** finish coat after a rain or while the substrate appears wet. Allow the substrate to dry. Areas where there is heavy splash and runoff may require 48 hours or more to dry.
- During cool, damp weather water-soluble salts may leach out of the cement and lime in base and finish coats leaving a white haze, efflorescence, on the surface.
- Variations in color due to job conditions and method of application should be expected. Weather conditions at the time of application, thickness and texture of the finish, and curing conditions play an important part in color uniformity and potential for cracking.
- Remove all scaffolding as soon as possible to eliminate any shadows on the finish.
- **Hawk & Trowel** pigments are sunlight resistant and not affected by the alkalinity of Portland cement and lime.
- Store in a cool dry place. Keep out of direct sunlight.

If you have any questions after reading this data sheet, please call Silpro before proceeding!

COVERAGE

Per 80# bag

40 – 70 sq. ft. (4-7 sq. m.) depending on texture. Heavy textures require more material.

PACKAGE SIZE

80# bag (36.29kg.)

SHELF LIFE

1 Year

CAUTION!

Irritating to eyes and skin. Contains Portland cement and silica. Avoid breathing dust. Product is alkaline on contact with water. During mixing or application avoid contact with eyes and prolonged contact with skin. In case of such contact, flood eyes repeatedly with water for at least 15 minutes and CALL PHYSICIAN. DO NOT RUB EYES. Wash hands thoroughly after handling and before smoking or eating.

See Material Safety Data Sheet for detailed information.

Use adequate ventilation. The use of a NIOSH/MSA approved dust respirator, safety goggles, and protective gloves is recommended.

**FOR COMMERCIAL USE ONLY.
NOT FOR INTERNAL CONSUMPTION.
KEEP OUT OF REACH OF CHILDREN.**

Dispose of in accordance with local, state, and federal regulations.

In case of a medical emergency or for information regarding spillage clean up or disposal call INFOTRAC: 800-535-5053.

WARNING!

Silpro Corporation is a blender of processed material. One or more of the components in this product could contain chemicals that may cause cancer, birth defects or other reproductive harm. The above warning is given in the absence of definitive testing to prove that the defined risks do not exist. We believe this product complies with all other applicable state and federal laws and regulations governing manufacture, distribution, and intended use.

GUARANTEE

Silpro Corporation guarantees that their products are made of the finest raw materials under exacting care to produce products of the highest quality and will perform as stated when used in accordance with the manufacturer's printed instructions.

There are many factors over which the manufacturer has no control, including improper mixing, workmanship during application, quantity of water added, thickness and texture of the finish, drying (curing) conditions, weather changes during the course of a job, absorption by and preparation, condition, and uniformity of the base coats. These factors may produce unsatisfactory results and cannot be held to be the manufacturer's responsibility. Silpro accepts no responsibility beyond the purchase price of the Silpro product used. There is no warranty, either expressed or implied, for finished work.

For further product information on **California Stucco** consult your local dealer or call Silpro Corporation at: **1-800-343-1501, 1-978-772-4444, FAX 1-978-772-7456.**

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