"Timeless by nature. Versatile by Design."

Guide Specification: 092523.27 Lime Plaster, Wet Areas

This guide specification specifies ecostucco® lime plaster shower system (Tadelakt) for application over a rigid substrate, along with a waterproofing membrane and various accessories. Related guide specifications are available for other interior applications and for exterior applications over a variety of other common substrates.

ecostucco® is a collection of architectural lime plasters and binders made with minimal, yet expert preparation. The natural properties of lime make ecostucco® a resilient and aesthetically pleasing finish solution to buildings of all styles and ages.

ecostucco® products are formulated for a full range of interior and exterior plaster applications, including:
- Masonry.
- Concrete.
- Sheathing.
- Interior Gypsum Board.

ecostucco® products also can be applied to specialty substrates such as hempcrete, adobe, and strawbale. Consult with ecostucco's technical department for specific guidelines for these and other innovative applications.

For more information, contact Mediterranean Colors, LLC at 3060 Kerner Blvd. Suite S, San Rafael CA. 94901; (415) 455-9896; www.ecostucco.com.

SECTION 092523.27

LIME PLASTER (WET AREAS)

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Lime plaster finish system for shower walls over a compatible wall board substrate approved for shower (wet) environments.

B. Waterproofing membrane.

C. Setting materials: thin-set and sealant.

Specifier: Edit the following list of sections applicable to the scope of the Project.

D. Related Requirements

1. Section 061600 Sheathing.

2. Section 071500 Sheet Waterproofing.

3. Section 092813 Gypsum Board and Tile Backer Boards.

1.2 REFERENCES

Specifier: If retaining this optional Article, edit list below to correspond to those references retained in edited specification section.

A. ASTM International (ASTM):

1. ASTM E96 – Standard Specification for Water Vapor Transmission of Materials.
2. ASTM C1280 –Standard Specification for Application of Gypsum Sheathing.
3. ASTM C920 – Standard Specification for Elastomeric Joint Sealants.
4. ASTM C926 – Standard Specification for Application of Portland Cement-Based Plaster.
5. ASTM C979 – Standard Specification for Pigments for Integrally Colored Concrete.
6. ASTM D4069 – Standard Specification Polyurethane Coatings.
7. ASTM C1116 – Standard Specification for Fiber-Reinforced Concrete and Shotcrete.
8. ASTM E84 – Standard Test Method for Surface Burning Characteristics of Building Materials.
9. ASTM D2369 – Standard Specification for Volatile Content of Coatings.
10. ASTM E119 – Standard Specification for Fire Tests of Building Construction and Materials.
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B. Gypsum Association:

1. GA 253 – Specification of the Application of Gypsum Sheathing.

C. American National Standard:

1. ANSI A118.10 – Waterproofing Membrane for Thin-Set Applications.

2. ANSI A118.15 – Specifications for Improved Modified Dry-Set Mortars.

3. ANSI A118.10 – Specifications for Waterproofing Membranes.

1.3 SUBMITTALS

A. Product Data: Submit product data on plaster materials, characteristics and limitations of products specified.

B. Shop Drawings: Provide shop drawings. Include full elevations showing openings and penetrations and details of edge, corner, and termination conditions.

C. Samples for Verification: Submit two samples, manufacturer's standard size but not less than 8 by 10-inches in size, of each specified plaster finish color and texture.

1.4 CLOSEOUT SUBMITTALS

A. Manufacturer's Instructions for preventative maintenance of plaster systems.

B. Manufacturer's warranties: Sample warranties demonstrating compliance with the specified warranty terms.

1.5 QUALITY ASSURANCE

A. Qualifications:

1. Manufacturer: A company specializing in the manufacture and distribution of lime plaster with a minimum of twenty years years of experience with a record of successful in-service performance and which has the production and distribution capacity to service the Project.
2. Installer: A company specializing in performing plaster/stucco work with a minimum of five years of experience in the application of lime plaster with a record of successful in-service performance and which employs trained and skilled installers and supervisors.

1.6 MOCK-UPS

A. Construct mockups in sizes necessary to fully represent the workmanship and critical details of construction. Include, as applicable, a representative edge condition, a representative opening condition, a representative corner condition, joint treatments, and other components necessary for evaluation of the workmanship and compliance with the design intent.

1. Construct mock-ups, in sizes sufficient for evaluation of material qualities in locations approved by the [Architect] [Owner's Representative] for each specified color and texture.
2. Accepted mock-ups may be incorporated into the Work.

1.7 PRE-INSTALLATION MEETING

A. Convene a meeting at the Project site to review site conditions and coordinate plaster work with affected trades, to review mock-ups, and to review the Construction Schedule.

1.8 ENVIRONMENTAL REQUIREMENTS

A. Maintain conditions at the Project site to allow plaster to be properly installed and cured according to the Manufacturer's recommendations.

1. Provide temporary protections to isolate work areas from other areas of the building and to maintain optimum control over application curing conditions.

B. Interior Environmental Conditions: Maintain temperatures in areas receiving plaster work at not less than 45 deg F (5 deg C) or greater than 86 deg F (30 deg C) for at least three days prior to application, continuously during application, and for three days after plaster has set and dried.

C. Protect plaster from drying too rapidly.

1. Distribute heat uniformly throughout work areas.
2. Maintain humidity levels for optimal application, curing, and drying of plaster.
3. Ventilate building spaces properly while maintaining controls so that plaster work is not adversely affected by drafts.

1.9 DELIVERY, STORAGE, AND HANDLING

A. Delivery: Deliver all materials to the construction site in their original, unopened packaging with labels intact, and in undamaged condition.

B. Inspection: Inspect and inventory the materials upon delivery. Report defects or discrepancies to the responsible party according to the Contract Documents. Remove substandard materials from the site and replace them with complying materials.

C. Storage:

1. Store cementitious materials off the ground, under cover, and in dry location.
2. Store aggregates where grading and other required characteristics can be maintained, and contamination prevented. Prevent site run-off and other water sources from saturating sand piles.
3. Store panel products so they are uniformly supported to prevent deformation and protected from adverse weather conditions. Keep stacks covered, dry, and ventilated to prevent condensation.
4. Store plaster accessories including metal items to prevent corrosion and accumulation of dirt and oil.

1.10 COORDINATION

A. Coordinate installation of substrate to ensure work meets tolerance requirements for subsequent application of plaster. Review requirements for joint treatments in the substrate.

1.11 MAINTENANCE

A. Extra Materials: Provide a sample pack of each installed material finish coat color sealed in a moisture-proof container.

1. Source extra materials from the same runs as those manufactured for the Project.
2. Deliver extra materials to the Owner's Representative in protective packaging and label to clearly identify the contents.
3. Deliver extra materials to a location identified by the Owner's Representative upon closeout of the Project and obtain a signed receipt.

PART 2 - PRODUCTS

2.1 SYSTEM DESCRIPTION

A. A lime plaster finish system for installation over a rigid substrate in a wet environment, as follows:

1. Waterproofing membrane.
2. Lime plaster base coat.
3. Reinforcing accessories.
4. Lime plaster finish coat.
5. Protective sealer coat.
6. Nominal thickness: 1/4-inch (6 mm).

2.2 MANUFACTURERS AND PRODUCTS

A. Basis of Design: ecostucco® shower plaster finish system (Tadelakt) by Mediterranean Colors, LLC - 3060 Kerner Blvd. San Rafael, CA 94901; (415) 455-9896; info@ecostucco.com

2.3 SYSTEM PERFORMANCE REQUIREMENTS

A. Deflection Limits. Design system to comply with the following:

1. Design for maximum allowable deflection, normal to the plane of the wall, of L/360.

2.4 MATERIALS

A. Substrate *(select one)*

1. DensShield® Tile Backer as manufactured by Georgia-Pacific.

2. Durock® Cement Backer Board as manufactured by United States Gypsum.

3. PermaBase® Brand cement board as manufactured by National Gypsum.

B. Waterproofing

1. Schluter® KERDI - Pliable, fabric-applied, bonded waterproof membrane and vapor retarder with limited crack-bridging capabilities.

2. Schluter® ALL SET - Specialized modified dry-set cement mortar designed to work in conjunction with the Schluter Kerdi® waterproofing membrane.

C. Base Coat Plaster

Specifier: **ecostucco® UNILIME** is an architectural lime plaster consisting of hydrated lime, specific minerals, and moderately coarse aggregates - all factory-blended to control compliance with specified performance requirements.

1. ecostucco® UNILIME - Architectural lime plaster ready to mix with water to achieve a mineral, vapor-permeable base coat over the specified substrate.

D. Surface Reinforcement

Specifier: Retain self-adhesive fiberglass mesh to reinforce repaired cracks and seams.

1. ecostucco® GMESH TAPE – Nominal 2.8 oz. / yd^2 self-adhesive fiberglass reinforcing mesh compatible with ecostucco® materials.

Specifier: Retain reinforcing fiberglass mesh fabric where added compressive strength is preferred.

2. ecostucco® GMESH LTE – Nominal 4.5 oz. / yd^2 fiberglass reinforcing mesh compatible with ecostucco® materials.

Specifier: Retain corner mesh bead fabric where strong and straight corner edges are preferred.

3. ecostucco® COMBO 90 – Nominal 4.5 oz. / yd^2 fiberglass reinforcing mesh flange 4.2 in. and 5.1 in. attached to a 7/8" perforated corner bead - 8 linear feet in length (2.5 meters) – compatible with ecostucco® materials.

E. Finish Coat Plaster

Specifier: **ecostucco® TRADILAKT** is an architectural lime plaster consisting of hydrated lime, specific minerals, and fine aggregates - all factory-blended to control compliance with specified performance requirements.

1. ecostucco® TRADILAKT – Architectural lime plaster ready to mix with water to achieve a mineral, vapor-permeable finish coat over the specified base coat.

F. Protective Sealer *(select one)*

Specifier: Add NEXSEAL where 24-hour chemical and stain resistance to most common contaminants including oil, grease, water, salts, and most common food items are preferred.

1. ecostucco® NEXSEAL – Two-component, water based, acrylic-modified polyurethane.

Specifier: Add BLACKSOAP where a more organic, traditional Tadelakt finish is preferred (not advised in commercial settings).

2. Marius Fabre® BLACK SOAP – Traditional, pure vegetable hydrophobic soap.

2.5 PLASTER MIXES

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine with Installer present to verify that substrate is sound and within tolerances appropriate for the application of plaster systems in accordance with the approved manufacturer's written recommendations.

1. Report all objectionable substrate conditions to the [Owner's Representative] [Architect], including but not limited to cracks, broken substrate, missing panels, coatings, water repellents, exposed metal reinforcement, and other substandard conditions that would adversely affect plaster performance.

B. Proceed with waterproofing work once substrate is determined to be suitable.

3.2 PREPARATION

A. Remove foreign matter, dust, efflorescence, lime run, laitance, and other bond-inhibiting substances from substrates.

B. Use commercial cleaning solutions that are effective in preparing surfaces without damaging the substrate and adjacent portions of the building and site.

3.3 WALLBOARD INSTALLATION

A. General: Comply with requirements of industry standards and the wallboard manufacturer's recommendations for installation.

B. Seams Reinforcement: Apply self-adhesive mesh tape of vertical and horizontal seams.

3.4 WATERPROOFING MEMBRANE APPLICATION

A. Apply waterproofing membrane according to the membrane manufacturer's instructions.

B. Install sealant joints at plaster terminations.

3.5 MIXING

A. Mix plaster components in accordance with manufacturer's written instructions.

1. Mix only as much plaster as can be used prior to initial set.
2. Add color pigments to finish coat.
3. Mix materials dry, to uniform color and consistency, before adding water.
4. Protect mixtures from freezing, frost, contamination, and excessive evaporation.

3.6 REINFORCING MESH APPLICATION

A. Apply mesh corner bead (if any) straight over square corner edges with the base plaster as the bonding coat.

B. Apply mesh to the substrate according to the Manufacturer's instructions. Overlap mesh at least 2" (5 cm) at all transitions. Hold overlaps 8 inches (20 cm) from inside and outside corners or overlap over corner bead mesh flanges (if any).

C. Embed mesh into the specified base coat, troweling it from the center and outward to its edges, so that the fabric lays flat on the substrate and embedment is consistent, sand-floated, free of tool marks, and with no visible mesh pattern on the surface.

D. Allow a curing time of 48 hours or longer, until the mesh coat is set and bonded to the substrate.

E. If, after the base coat has dried, mesh is visible on the surface, apply a skim coat to cover all exposed mesh.

3.7 ACCESSORIES INSTALLATION

A. Install accessories in accordance with ASTM C1063.

1. Place casing beads and profiles at terminations of plaster finish. Butt and align ends. Secure rigidly in place.
2. Accessories: Provide specified accessories at plaster terminations and joints.

3.8 PLASTER APPLICATION, GENERAL

A. Apply plaster in accordance with the Manufacturer’s instructions.

B. Complete plastering of ceilings if any, in an area prior to plastering walls. The plastering shall be started from the top and worked downwards towards the floor.

C. Thickness: Thickness shall be uniform throughout the areas being finished.

1. Apply base coat to sufficiently embed the reinforcing mesh (min. 1/8 in.)
2. Apply finish coat to a nominal thickness of 1/8 in.

D. After curing, dampen base coat prior to applying finish coat. Allow 24-48 hours between mesh coat and finish coat.

E. Apply finish coat to indicated color and texture.

F. Avoid excessive working of the surface. Delay troweling as long as possible to avoid drawing excess fines to surface.

3.9 SURFACE TREATMENT APPLICATION

A. Preparation: Do not apply sealer below 50°F or above 100°F during the application. Avoid exposure to water or moisture 48 hours after the sealer application.

B. Application: Apply in accordance with published literature. Comply with the sealer manufacturer's requirements for drying or curing time of the finish coat, before application of the sealer.

3.10 CLEANING AND PROTECTION

A. Remove temporary protections. Clean finished surfaces as recommended by the approved manufacturer.

B. Replace or repair damaged work.

3.11 FIELD QUALITY CONTROL

A. Schedule and attend a comparative inspection of mockups and installed system with the approved Manufacturer's technical representative to verify that the work of this Section complies with the specified requirements, the approved submittals, and the Manufacturer's recommendations. Make corrections recommended by the Manufacturer.

B. The Owner reserves the right to engage a qualified testing agency to conduct additional inspections and tests to verify compliance with the specified requirements. Work not complying with the specified requirements shall be corrected and retested to verify compliance at no additional cost to the Owner.

END OF SECTION

The ecostucco® products offered by Mediterranean Colors, LLC are to be utilized by verified professional contractors, and further, the products are to be integrated within a specific larger construction assembly designed by an architect, a designer, a general contractor, or a builder. Such work should be conducted according to the instructions and specifications set forth by Mediterranean Colors, LLC and the qualified professional. Mediterranean Colors, LLC explicitly disclaims all responsibility, and all liability, for any on-site inspection, and for any products that are misapplied, or implemented improperly by unqualified individuals or organizations, as part of a building that has been designed or constructed improperly, for the adjacent building components or assemblies that are not functional, for any construction work that Mediterranean Colors does not control, and for any building activities that are outside of Mediterranean Colors' control. Improper design or construction within a larger assembly or building that involves the ecostucco® products could also result in severe damage to the building components, structure, or to the ecostucco® products.

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