



**Fine Venetian Lime Plasters**  
**"Authentic Green Building Products"**

# Specifications for **FirmoLux™** Products "All-Natural Lime Plaster"

## for **EXTERIOR APPLICATION**

www.VenetianPlaster.it by FirmoLux™  
8437 Tuttle Ave, Ste 227  
Sarasota, FL 34243  
941.366.5550 Tel  
[www.VenetianPlaster.it](http://www.VenetianPlaster.it)  
[info@VenetianPlaster.it](mailto:info@VenetianPlaster.it)

## **SECTION 09225 - VENETIAN & OTHER PLASTERS (Typically Lime Plasters)**

### **PART 1 GENERAL**

#### **1.01 SUMMARY**

This document is intended to be used in preparing specifications for projects utilizing **FirmoLux™** Italian Lime All-Natural Plasters and Primers for Exterior Applications.

#### **SPECIFICATION PRODUCT**

For complete product descriptions and usage refer to:

##### **A. Lime Finishing Plasters**

1. Intonaco Mezzo™ <http://www.venetianplaster.it/intonaco-mezzo-msds>
2. Marmorino Piatto™ <http://www.venetianplaster.it/marmorino-piatto-msds>
3. Marmorino Berlina™ <http://www.venetianplaster.it/marmorino-berlina-msds>
4. Rastura di Base™ Contact [info@firmolux.com](mailto:info@firmolux.com) for MSDS Marmorino di Base™

##### **B. Primers**

1. MicroPrimer™ <http://www.venetianplaster.it/microprimer-msds>
2. Anchor Primer™ <http://www.venetianplaster.it/anchor-primer-msds>

#### **SUBSTRATES**

Coordinate related sections to assure satisfactory preparation of substrates.

##### **C. Plaster Brown Coat/ Rendering**

Apply brown coat in accordance with "*ASTM C926 – Application of Portland Cement-Basted Plaster*" and Portland Cement Association's Portland Cement Plaster (Stucco) Manual. Pay particular attention to moist curing requirements additional resistance to cracking, a fiber mesh can be imbedded into brown coat but not necessary. Brown coat finish /rendering should have an above average finish and should be cork floated to maximize quality of finish and diminish the porosity of the substrate to enable ease of application of finish. **See 1.01 F (Primers, Leveling Products, and Finish Products** for more information on Product Selection.

##### **D. Pre-Cast Stone / Stone / Brick / Applied Stone**

1. Cement Block  
For best results, apply brown coat in accordance with "*ASTM C926 – Application of Portland Cement-Basted Plaster*". Application can be directly on cement block, but the desired effect or texture is limited to certain looks. In some cases, the block shapes and grout areas will be incorporated into the finish look. Grout should be free of cracks and smooth and level to block. For best quality and results, refer to **1.01 C**
2. Stone  
For best results, application should be over smooth stone or for special effect finishes where the shape of the stone is desired. Grout should be free of cracks and smooth and depending on effect level with the stone.
3. Brick  
For best results, application should be over smooth brick only or for special effect finishes where the shape of the brick is desired. Grout should be free of cracks, loose segments and smooth.

##### **E. Non New Construction for Existing Exterior Surfaces (Restoration and Remodeling)**

1. **FirmoLux™** Lime Finishes can also be used over existing surfaces, such as painted walls, stucco, on concrete, masonry, and wood as well as most other substrates.
2. Contact **FirmoLux™** for substrate preparation recommendations for non standard applications.

##### **F. Primers, Leveling Products, Finish Products for substrate** **PRIMERS**

Depending on the finish and texture desired the following Primers are suggested for exterior use.

- Anchor Primer™ (**See 1.01 B**) is advised when the substrate has more porosity and less of a smoother finish and is the ideal exterior penetrating water based quartz primer. This primer will help to fill in pores of substrate and provide a superior bond between substrate and finish product or over existing finishes in Restoration and Remodeling.
- MicroPrimer™ (**See 1.01 B**) is advised when the substrate is less porous and has a smoother finish like drywall in new construction. This primer is a penetrating primer and will form a barrier and superior bond for the application of the finish product. This primer is suggested under finer plasters such as Marmorino Berlina™ and in areas that are not directly exposed to the elements of nature.
- Please consult with manufacture for professional suggestions of primers based on all details of construction, substrate and geographical location of project.

#### LEVELING PRODUCTS

A 1<sup>st</sup> coat or a leveling product is suggested to give the finish a more desired effect depending on the finish texture that is to be expected. Common leveling products are:

- Intonaco Mezzo™ <http://www.venetianplaster.it/intonaco-mezzo-msds> - 700 Micron Mineral Granulation
- Marmorino Piatto™ <http://www.venetianplaster.it/marmorino-piatto-msds> - 600 Micron Mineral Granulation
- Rastura di Base™ Contact [info@firmolux.com](mailto:info@firmolux.com) for MSDS Marmorino di Base™ - 300 Micron Mineral Granulation

#### FINISHING PRODUCTS

2nd and/or 3<sup>rd</sup> coat or a finish product is suggested to give the finish a more desired effect depending on the desired finish texture that is to be expected and selected. Desired exterior finishing products are:

- Marmorino Piatto™ <http://www.venetianplaster.it/marmorino-piatto-msds> - 600 Micron Mineral Granulation
- Marmorino Berlina™ <http://www.venetianplaster.it/marmorino-berlina-msds> -300 Micron Mineral Granulation

### 1.02 RELATED SECTIONS

- A. 03300-Cast-in-Place Concrete: Concrete substrate.
- B. \_\_\_\_\_: Masonry substrate.
- C. 09210-Gypsum Plaster: Gypsum Plaster Substrate.
- D. 09220-Portland Cement Plaster: Portland Cements Plaster Substrate.
- E. 09250-Gypsum Board: Gypsum board substrate.

### 1.03 SUBMITTALS

#### A. Produce Data:

Submit (two) \_\_\_\_\_ copies of manufacture's product data for finishes, and other materials provided under this Section.

#### B. Verification Samples:

Submit three (3) \_\_\_\_\_ copies of color samples at least twenty-four by twenty-four (24"x24") \_\_\_\_\_ in size illustrating range of color(s) along with texture(s) suggestion or ideas or what is to be expected in completed work. Along with any samples of colors to match using a Paint Manufactueres color fan deck or we can match any stone or tile.

#### C. Shop Drawings:

Indicate designs, colors, locations, and relationship to of adjoining surfaces and colors.

### 1.04 QUALITY ASSURANCE

#### A. Mock-up:

1. On projects where application of more than 100 M<sup>2</sup> (about 1075 Ft<sup>2</sup>) is proposed, an application mock-up prior to installation of work of this Section will be conducd of each specified finish on approximately 10-15 M<sup>2</sup> (about 105-160 Ft<sup>2</sup>) \_\_\_\_\_ in surface area to demonstrate aesthetic effects and set quality standards for materials and execution.
2. Install mockups for each type of finish indicated.
3. Notify Architect seven (7) days in advance of the dates and times when mockups will be constructed.
4. Demonstrate the proposed range of aesthetic effects and workmanship.

5. Based on signed approved sample, use specified materials and techniques to illustrate range of color(s), texture(s) and workmanship to be expected in completed work.
6. Retain approved mock-up until work has been completed and accepted. Accepted mock-up may be incorporated in final work.

**B. Pre-Installation Conference:**

1. On projects where application of more than 100 M<sup>2</sup> (about 1075 square feet) is proposed, conduct a meeting at project site within two (2) weeks of scheduled start of application with representatives of the following in attendance: Owner, Architect, Interior Designer, General Contractor and any Sub-Contractors involved.
2. Review substrate conditions, approved samples and colors, requirements of related work, application procedures, and protection measures.
3. Keep minutes of meeting including responsibilities of various parties, and record deviations from specifications and application instructions. Distribute minutes to attendees within 2-3 business days of meeting.

## **1.05 DELIVERY, STORAGE AND HANDLING**

- A.** Depending on size of project and the number of buckets being used, product will arrive on a pallet with a maximum of thirty-three (33) 25kg (55 Pound) buckets on each pallet. Each pallet could weigh as much as 825Kg (about 1,820 Lbs.), and each bucket will be in the size of a 5 Gallon Plastic Bucket. A fork-lift should be on site or labor to remove the products manually off of truck and moved to be stored according to this section. Notice of delivery date will be provided at least 7-8 days in advance of delivery.
- B.** Further note, depending on the size of project and estimate of product needed must be relayed to FirmoLux to assure that ample material will be in North America. Since this commodity is ordered on demand, consideration to product availability is crucial to all aspects of this project proceeds on time.
- C.** Materials will arrive in their original packaging with manufacture's labels identifying manufacturer and product; color designation; lot number; date of manufacture; and location for application. Instructions will be provided to application team to insure proper application of products in proper locations.
- D.** Inspect materials upon delivery and immediately report to Architect or Manufacturers' representative damaged or defective materials within 2-3 business days of delivery.
- E.** Store materials in well ventilated, dry and protected area or environment with minimum storage temperature is no less than 5°C (42°F) and not more than 35°C (95°F). **Keep out** of direct sun and preferably in a cool dry indoor or protected location. If product is to be stored in outdoor shaded area, a plastic tarp should be used to cover buckets to keep clean and dry.

## **1.06 WARRANTY**

**A. Manufacture's Limited Warranty:**

**FirmoLux™, LLC** as manufacturer and FirmoLux representative and distributors shall provide a five (5) year limited warranty against defective material upon written request. **FirmoLux™, LLC** shall make no other warranties, expressed or implied and the manufacturer / **FirmoLux™, LLC** does not warranty workmanship unless an approved manufacturer's approved installer is used and all conditions of this section are applied and followed. Warranty on workmanship is voided when problems result from problems originating from the substrate or substrates material or for circumstance beyond our control such as acts of extreme nature, war, civil unrest including domestic or foreign terrorism.

## **1.07 Project Conditions**

- A.** Comply with ASTM C 926 requirements.
- B.** Product should be applied on exterior surfaces AFTER all other exterior finish work is complete. This includes but not limited to roofing, gutters, windows, doors, exterior stone applications either pre-cast or natural, balcony or soffits, and especially in areas where other construction or traffic could affect the early stages of product curing. In essence, application of finishes should be the last to be completed on project allowing for any scaffolding to be removed soon after application to avoid irregular drying caused by unnatural shadows, water or debris that could

splash off of scaffold surfaces or other occurrences that could happen from other contractors and workers damaging fresh finishes as a result their carelessness.

- C. Never apply product in rainy weather or with air or substrate temperature below 5°C (42°F) or in direct sun where temperature is above 32°C (90°F). Protect the façades from rain for at least the first 48 hours or until lime has finished settling and has begun the process of carbonation. Caution should be taken to work on shaded walls during the daytime. If exterior application must be conducted in the sun or with direct exposure from the sun, it is suggested to shade working area so that newly applied plaster dries naturally. Begin to apply approved exterior Penetrating Sealers (Ask FirmoLux for approved list of Sealers) no earlier than 48 hours and not later than 3-4 days from this period. After final finish and before removing of scaffold all areas must be inspected and signed off by project manager, home owner, designer, contractor or any project supervisor with the authority to inspect and approve.
- D. Remove or tear down scaffolds in sections and once inspection for those areas are complete.

## **PART 2 PRODUCTS**

### **2.01 PLASTER**

**A. Acceptable Manufacturer:**

**FirmoLux™, LLC (USA)**  
8437 Tuttle Ave, Ste 227  
Sarasota, FL 34243  
941.366.5550 Telephone USA  
Email: [info@VenetianPlaster.it](mailto:info@VenetianPlaster.it)  
Website: [www.VenetianPlaster.it](http://www.VenetianPlaster.it)

**B. Substitutions:**

None permitted.

**C. Product Composition and Container:**

The product is naturally white in color before mixed with natural mineral oxide pigments / colorants. All products will be pre-mixed with approved colors of choice. Products are made from aged magnesium grade hydrated slacked dolomite lime putty, granules of white Carrera marble specifically crushed and formulated for lime plaster, and other natural elements and binders to help with application. All the granulation of minerals are the same size and they can range from 300 – 700 microns depending on product used along with linseed oil, natural resins, and all-natural color pigment specifically formulated for lime. Most exterior products contain less than <1% natural resins and compounds for perfect workability and enforcement to aide in the natural look for ultimate austenitic appeal.

**D. Performance:**

Class A; surface burning characteristics not exceeding Flame Spread = 0 and Smoke Density = 0 when tested according to ASTM E84.

### **2.02 COLORING / TINTING**

**A. Colorants:**

High quality, fade-resistant, all natural mineral color pigments made specifically for lime plaster are used in tinting lime plasters. Iron oxide pigments especially formulated for exterior application to inhibit fading due to weather, extreme weather and high levels of UV Radiation. Products age gracefully over years and will need little to no maintenance depending on environment and geographical location of building. Pigments are designed specifically for areas of the world with High UV exposure such as the Mediterranean coast of Europe, Middle East and North Africa and the Caribbean. Color to match Architects samples.

**B. Color:**

Match \_\_\_\_\_ (Sherwin Williams® or Benjamin Moore® Color swatch No \_\_\_\_\_).

**C. Color(s):**

Provide one (1) or/and up to \_\_\_\_\_color(s) to be selected by Architect/Interior Designer

\_\_\_\_\_.

## **2.03 MIXING OF PRODUCT**

NEVER mix **FirmoLux™** products with any other products or products of similar in nature that are not manufactured by of **FirmoLux™**. Mixing of **FirmoLux™** products are acceptable and desirable for certain application affects. Before using any products, mix all materials well to assure colorants are uniformly dispersed. Boxing of products is suggested when large coverage surfaces on the same wall are to be completed offering a more uniformly dispersed color. Remember that Lime Plaster is a natural product, and like all natural products some color shifting can occur naturally over time therefore mixing products before use are highly suggested. Always mix product with clean tools free of any other chemicals, material or dirt, and protect against entry of dust and construction debris into bucket during mixing. Keep bucket containers **closed** and **sealed** at all times when not being used to protect contamination of product from dirt and other foreign objects as well as exposure to sun and air. If necessary, add a very small amount of clean, potable water to help in mixing if material has become stiff due to climate conditions and prolonged opened containers.

## **2.04 ACCESSORIES**

### **A. Primers**

It is always suggested that the use of Primers be used on Exterior applications in new or restoration projects. We suggest to use only water based penetrating exterior acrylic primers with tolerance of level pH 13 that will provide superior bonding between substrate and finish material; (*see 1.01 F*) for information about FirmoLux Primers.

## **2.05 TOOLS**

- A.** Only use INOX stainless steel finishing trowels, spatulas, putty knives and mixing tools that are designed specifically for lime applications and decorative plaster. This will guarantee the desired results of authentic Venetian plasters. Tools are moderately prices **FirmoLux™**.

# **PART 3 EXECUTION OF APPLICATION**

## **3.01 EXAMINATION**

- A.** Verify the suitability of existing condition of surface before beginning application. Do not begin application on these sections until unsatisfactory conditions have been corrected and repaired.
- B.** Acceptable substrate tolerances  $\pm 1.27\text{mm}$  (0.05 inches) in 60cm (2 Feet), and  $\pm 3.8\text{mm}$  (0.15 inches) in 182cm (6 feet).
- C.** The surfaces to receive plaster are clean and free from dust, loose particles, oil, salt and other substances that could affect the adhesion, and installation of the finish.
- D.** If the exterior substrate has been sitting exposed to construction debris, dirt or sea air for more than 7 days, it is highly suggested that the surface be pressure washed or scrubbed with clean soft brush and hosed down with clean potable water and allow drying for 24 hours before application of primers.
- E.** If existing surfaces have peeling or affected areas not suitable for application, then substrate must conform to articles in this section to prepare the wall for installation.

## **3.02 PREPARATION**

- A.** Comply with manufacturer's written instructions for substrate preparation.
- B.** **FirmoLux™** Plasters and Paints shall be protected by permanent or temporary means from weather and other damage prior to and during the following applications until dry.
- C.** Protect adjacent surfaces and items that are not to receive plaster finish.

## **3.03 APPLICATION**

### **A. Prime Coat:**

Where recommended by manufacture, apply primer coat as noted above and allow drying for 8-12 hours or until it is completely dry.

**B. Finish:**

1. Apply 1<sup>st</sup> coat of finish coats as recommended by manufacturer to achieved desired results. Number of coats and total dry mil thickness shall be as recommended by manufacture for the specific finish and texture specified.
2. While applying plaster to prepared substrate, prepare to have available draping/tarping to cover fresh plaster from rain.
3. In direct sun application area should be tented 3-5 hours prior to and during application. Leave tented while exposed to direct sun for up 6-8 hours if temperatures are above+ 18°C (65°F)

**3.04 SEALING**

- A.** Allow at least 48 hours for plaster substrate to dry before applying any material over finished plaster (depending on weather conditions).
- B. Exterior Sealers:**  
For exteriors, it is recommended that a penetrating sealer be applied (recommended by manufacturer) to add and protect the exterior finish from exposures to weather, dirt, high degrees of exposure to sun and natural elements. Our sealers offer a 7-year warranty. A second coat should be exposed to areas expected to receive higher than normal exposure to weather and natural elements. Allow the first coat to dry before applying second coat. Promptly after application of coat, wipe surface to remove any excess sealer
- C. Application:**  
If weather permitting and not very windy, we suggest a commercial sprayer to apply sealer. One-person sprays, while he is followed by 2<sup>nd</sup> person to watch for drips and dab away an access sealer that could cloud the surface. We have a video with instructions.

**3.05 CLEANING**

- A.** Remove masking and temporary protection and enclosure of other work. Promptly remove plaster from doorframes, windows, and other surfaces not indicted to be plastered. Repair floors, walls, and other surfaces stained, marred, or otherwise damaged during plastering.

**3.06 PROTECTION**

- A.** Protect from rain for 6-8 hours after sealer application.
- B.** Surface should bead up when sprayed with water.
- C.** Protect finishes as required to assure that they will be without damage at substantial completion
- D.** Repair damage in accordance with manufacturer's instructions and to satisfaction of Architect.

**END OF SECTION 09225 - Venetian and other Plasters.**