



FLORIDA LATH & PLASTER BUREAU

What Constitutes "Stucco"?

The Florida Building Code defines "stucco" as a Portland cement-based plaster mixed and applied according to the ASTM C 926, "Standard Specification for Application of Portland Cement-Based Plaster." This standard contains specific requirements for the materials, methods and quality control used in applying stucco, including approved thicknesses for different application substrates.

Currently, there are no standards governing the production or application of "one-coat stucco."



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Technical Bulletin

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Choosing the Right Materials for Stucco in Florida

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Materials

Sand

Aggregates for stucco must meet the requirements of ASTM C 897, "Standard Specification for Aggregates for Job-Mixed Portland Cement-Based Plasters." There are no appreciable amounts of natural sand within Florida that will meet all of the sieve requirements of that Standard. However, the Standard includes language, Section 6.1.2, which allows the use of local aggregates with a history of successful integration in stucco. The specifier need only to reference this Standard in the Project Specifications.

Cement

Stucco Cements manufactured within the state of Florida are specifically designed for use in our uniquely harsh environmental conditions and with locally available, natural aggregates. Stucco Cements hold the following performance advantages over other mixes approved in ASTM C 926:

- *Better workability* - means increased production rates and lower costs;
- *Increased plastic window* - provides for less re-tempering;
- *Lower water/cement ratio* - reduces the tendency to shrink and/or crack;
- *Better availability* - pre-packaged stucco cement provides for a more consistent jobsite mix;
- *Better sulfate resistance* - Florida's salt air environment creates a high sulfate exposure;
- *Safety* - Reduced chance of injury due to exposure to the caustic, hydrated lime.

Though other mixes are approved by the Standard, Stucco Cements provide the specifier with the best combination for producing a quality, plastered project. Specify plaster types M, MS or P for base coats and FM, FMS or FP for finish coats (ASTM C 926, Tables 2 and 3 respectively).

Water

Water must be cool and potable. The rule of thumb is, "If you won't drink it, don't make stucco with it!" In addition, hot water will cause to mortar to "flash" set. This destroys the workability and ultimate performance of all mortar types. The specifier need only call for "cool and potable water."

Lath

Metal

ASTM C 1063, "Standard Specification for Installation of Lathing and Furring to Receive Interior and Exterior Portland Cement-Based Plaster" governs the use of metal plaster bases (lath) and accessories. This Standard requires the use of ¼ inch self-furring lath of a minimum weight of 2.5 lbs/yd² for vertical surfaces. Note that there is no acceptance of 1.75 lb. lath.

Non-Metallic

Recently, ASTM has approved and published three new Standards regarding non-metallic laths including fiberglass and PVC. These laths are approved for use on vertical walls only. The Standards are: ASTM C1764 Test Methods, ASTM C 1788 Specifications which provides performance parameters based on testing per C 1764, and C 1787, "Standard Specification for Installation of Non Metallic Plaster Bases (Lath) Used with Portland Cement-Based Plaster in Vertical Wall Applications," which describes Installation. Currently, non-metallic laths will be subject to local jurisdictional acceptance; though universal acceptance should be forthcoming with the next code cycle.

Fiber

ASTM C 926 allows for the addition of ½ inch natural or

synthetic fibers to enhance the crack resistance or pumpability of a plaster mix. These fibers must meet the requirements of ASTM C 1116, "Specification for Fiber-Reinforced Concrete and Shotcrete." Many fibers will create a fuzz when used in the finish coat. Check your fiber in a small area prior to inclusion in the finish coat.

Admixtures

Bonding Agents - Specify only ASTM C 932 compliant, non-reemulsifying, non-rewetting and non-retackifying bonding agents to be used according to the manufacturer's instructions. Bonding agents are required to be tinted so as not to dry clear. Tinting verifies the presence of the bonding agent.

Waterproofing Agents - All Florida manufacturers of masonry or stucco cements include a waterproofing admixture integrally ground into the mix during production. These admixtures are designed to increase the water retention rate of the plaster so as to enhance the hydration or curing process as well as to increase the water repellency of the hardened plaster. The jobsite addition of further waterproofing agents is not recommended.