



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."



Florida Lath & Plaster Bureau
6353 Lee Vista Blvd.
Orlando, Florida 32822
www.flapb.com

Stucco Advisory

SA ST-#02-03.21

Plaster Accessories & Construction Adhesives

For many years now, plastering contractors have been using construction adhesives to affix accessories such as cornerbead, casing bead and others to solid substrates. We have found that the proper adhesives perform better than the mechanical fasteners mandated in ASTM C 1063.

This practice is not currently supported in the Florida Building or Residential Codes by virtue of a definitive statement within the current code-referenced standards, ASTM C 926 and C 1063. The current applicable reference standard is C 1063-12a. It calls for 3/4 inch galvanized stub nails for attachment of accessories and lath to solid plaster bases as defined in C 926. That definition is :

3.2.23 *solid plaster bases, n*—substrates that do not require metal plaster base, including cast in place and precast concrete, concrete and stone masonry, clay brick, and tile.

At the same time, C1063-12a addresses fastening requirements as follows:

7.10.5 Metal plaster bases shall be attached to masonry or concrete with power or powder actuated fasteners or a combination of power or powder actuated fasteners and hardened concrete stub nails. One power or powder actuated fastener shall be located at each corner and one at the mid-point of the long dimension adjacent to the edge of the metal plaster base sheet. The balance of the sheet shall be fastened with power or powder actuated fasteners or hardened concrete stub nails. The fasteners shall be installed in rows not more than 16 in. (406 mm) on center and spaced vertically along each row not more 7 in. (178 mm) on center. All fasteners shall be corrosion resistant and shall be not less than 3/4 in. (19 mm) long, with heads not less than 3/8 in. (9.5 mm) wide.

The problem facing the plastering contractor is that a 3/4 inch stub nail will spall the concrete block when positioned roughly 2 inches or less from the block edge.

To combat this issue, contractors began using 3/8 stub nails but this really compounded the issue. 3/8 stub nails did not hold the accessories well to the point that a minor pull on the accessory would remove it. Of course, once the plaster was placed, it would bond to the solid plaster base through the flange perforations and that helped. However, they now had a question of compliance with the code. Over the next few years we began to see contractors applying construction adhesive along with the 3/8 stub nails. This definitely solved the adhesion issue with a tenacious bond though it was still left to the Code Official to interpret whether this constituted a betterment to the code. Adhesion with construction adhesive worked exceptionally well for a time. Unfortunately, the advent of expanding foam adhesives brought about a new wrinkle in spray foam adhesive. This does not work well for several reasons. First and foremost, many do not have the tensile bond strength of the more conventional adhesives. Secondly, the expanding nature of these adhesives pushes the accessory out of plane. And foam adhesives tend to fill the flange perforations with adhesive which inhibits the bond to the substrate. These two methods have been the norm or common industry practice (though not industry standard) for years not only in Florida but throughout the country. We have years of empirical evidence to support the use of particular types of construction adhesives. This promulgated a proposal to change ASTM C 1063 to allow for construction adhesives. The original proposal was discussed and edited several times to ensure the proper language would be instituted and the proposal passed into the current, but not yet code referenced version of ASTM C 1063-16b. It reads as follows:

7.11.1.3 Alternatively, secure accessories with perforated or expanded flanges directly to solid plaster bases (as defined by 3.2.25 of ASTM C926) by means of a materials compatible, exterior, gun-grade, construction adhesive applied in nominal 1inch (25.4mm) dabs spaced at intervals per 7.11.1.1 or in a semi-continuous bead between the solid base and the unperforated portion of the flange. **Expandable foam adhesives shall be prohibited.**

Bear in mind that this is not in the current code and won't become supported in the code until this version (C1063-16B or later) is adopted into the Florida Codes with the next code cycle, the 2017 code.

There likely will be some editing to this section before it gets adopted and there are a few items to note when considering adhesive attached accessories.

- 1) There will still be some stub nails used to hold the accessory in place while the adhesive sets. A 3/8", corrosion resistant stub would be fine for this.
- 2) This method would be applicable to both PVC and metal accessories.
- 3) The solid base must be cleaned and dry prior to adhesive application.
- 1) It is important to keep the perforations as free of adhesive as possible so as not to inhibit the bond of the plaster to the solid base. See photos below.
- 5) Verify the compatibility of materials: plastic, masonry or metal as specified.
- 6) Adhesives are not approved for the application of lath of any kind.
- 7) Adhesives are not approved for the application of lath or accessories on wood or other sheathing.

