



Decorative Cementitious Coating (DCC) & The Florida Building Code

- 1) The FRC specifies the numbers of coats and the thicknesses required of weather-resistant finishes on walls from the approved list in Section R703.13. In that list, you'll find Stucco or Portland Cement-Based Plaster. There you'll find 2-coat and 3-coat plaster. The thickness over cast-in-place is $\frac{3}{8}$ inch; over CMU in 2 coats – $\frac{1}{2}$ inch and over CMU in 3 coats – $\frac{5}{8}$ inch.
- 2) Section R7.03.1.1 excepts masonry and concrete from this table when the masonry/concrete is constructed in accordance with Chapter R607.2. and under the testing conditions below. We find this is rarely the case due to the requirements for tolerances set forth in that section. And testing is EXPENSIVE!

Exceptions:

1. A weather-resistant exterior wall envelope shall not be required over concrete or masonry walls designed in accordance with Chapter 6 and flashed per Section R703.7 or R703.8.
2. Compliance with the requirements for a means of drainage, and the requirements of Section R703.1 and Section R703.8, shall not be required for an exterior wall envelope that has been demonstrated to resist wind-driven rain through testing of the exterior wall envelope, including joints, penetrations and intersections with dissimilar materials, in accordance with ASTM E 331 under the following conditions:
 - 2.1. Exterior wall envelope test assemblies shall include at least one opening, one control joint, one wall/eave interface and one wall sill. All tested openings and penetrations shall be representative of the intended end-use configuration.
 - 2.2. Exterior wall envelope test assemblies shall be at least 4 feet (1219 mm) by 8 feet (2438 mm) in size.
 - 2.3. Exterior wall assemblies shall be tested at a minimum differential pressure of 6.24 pounds per square foot (299 Pa).
 - 2.4. Exterior wall envelope assemblies shall be subjected to the minimum test exposure for a minimum of 2 hours.

The exterior wall envelope design shall be considered to resist wind-driven rain where the results of testing indicate that water did not penetrate control joints in

the exterior wall envelope, joints at the perimeter of openings penetration or intersections of terminations with dissimilar materials.

- 3) The FRC also defines Decorative Cementitious Coating (DCC) as follows: **DECORATIVE CEMENTITIOUS COATING.** A skim coat, as defined in ASTM C 926, of Portland cement-based plaster applied to concrete or masonry surfaces intended for cosmetic purposes.

Herein lies the problem. DCC is defined as being Portland Cement-Based Plaster. Chapter R703.6 says Portland Cement-Based plaster must be applied to exterior walls in accordance with ASTM C926 & C 1063. Therefore, DCC is Portland Cement-Based Plaster (stucco) and must be applied as such.

R703.6 Exterior plaster.

R703.6.1 Exterior use of Portland cement plaster shall comply with the application requirements of ASTM C 926.

R703.6.2 Installation of exterior lathing and framing shall comply with the application requirements of ASTM C 1063.

C926 and Chapter R703.13 both have the same thickness and coat requirements. The 2010 FRC now acknowledges the need for “nominal” in terms of plaster coat thickness but still requires Portland Cement-Based Plaster and, therefore, DCC to meet the number of coats in the table.

So, it boils down to this...is it really worth documenting that each structure has met the requirements of the exceptions? I don't think so based upon these two observations:

I have yet to find any residential masonry construction that would pass the mortar joint tolerances of the code.

Regardless of the exception in the code, we know that even good masonry walls will leak in a wind-driven rain test (ASTM E 514) and adding a skim coat does very little to enhance performance in this regard.

For further information, contact In-Spex, LLC at www.in-spexllc.com or (407) 588-2561.