

PETITION FOR DECLARATORY STATEMENT
BEFORE THE FLOIDA BUILDING CODE COMMISSION

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Declaratory Statement for application of code provision R703.6.5

R703.6.5 Curing.

The finish coat for two-coat cement plaster shall not be applied sooner than seven days after application of the first coat. For three-coat cement plaster, the second coat shall not be applied sooner than 48 hours after application of the first coat. The finish coat for three coat cement plaster shall not be applied sooner than seven days after application of the second coat.

Petitioner and Others Substantially Affected

The petitioner is a Standard Building Code Official and Educator and is need of clarification of the provision's application since it is in conflict with the past and current edition of the Florida Building Code, Residential and creates ambiguous stucco provisions. Others within the construction and plastering industry are substantially affected by code uncertainty when applying their product in compliance with code applications that create varying schedule requirements and techniques based upon regional interpretation of ambiguous and conflicting provisions and that are overly burdensome and unnecessarily costly. Additionally, the Florida stucco product itself may be prevented from application techniques best suited for Florida's unique climatic environment.

History

When prescribed and required by the provisions of the Florida Building Code for fire resistance, wall shear resistance, wall covering or other provisions, stucco must be proportioned, mixed, installed and cured using an approved methodology. Since the inception of the Florida Building Code, the ASTM C-926 "Standard Specification for Application of Portland Cement-Based Plaster" has been the referenced standard for code mandated stucco installations *in and of itself* in our Florida Codes. Accordingly, previous editions of the Florida Building Code simply referenced the ASTM C-926 Document for stucco compliance.

With the arrival of the Florida Building Code, RESIDENTIAL in 2004, required stucco compliance was reduced to a single provision at R703.6.1:

R703.6.1 - Exterior use of portland cement plaster shall comply with the application requirements of ASTM C 926. (2004 FBC, RESIDENTIAL).

This simple provision has controlled in every RESIDENTIAL edition since, including our new 5th edition.

The original methodology and provisions used to formulate the ASTM C-926 were assembled from existing prescriptive methodology. Although the ASTM C-926 has been the bellwether reference for Florida stucco installations, prescriptive stucco standards have continued to exist in other codes outside of Florida, such as the ICC. It is one of these prescriptive standards that is at issue in this request.

The Florida Building Code, RESIDENTIAL, 5th edition maintained the ICC sectional provisions related to prescriptive provisions adding exceptions for those complying with ASTM C-926 – all provisions that is save one; R703.6.5 – Curing. This section (like its predecessor) should contain an exception for compliance with ASTM C926 – it does not. The petitioner contends that the lack of this exception at this one section was merely Scrivener’s omission.

Current Code Provision Related to Code Mandated Stucco

2014 Florida Building Code (Fifth Edition) – Residential

R703.6 Exterior Plaster.

Installation of these materials shall be in compliance with ASTM C 926 and ASTM C 1063 and the provisions of this code.

(Petitioner’s Note. This section provides for ASTM C 926 compliance without any modifications. This provision resides in the new code and the previous verbatim. The following provision were ADDED to the 5th Edition.)

R703.6.4 Application.

Each coat shall be kept in a moist condition for at least 48 hours prior to application of the next coat.

(Petitioner’s Note. This is a prescriptive provision outside of the ASTM C 926)

Exception: Applications installed in accordance with ASTM C 926.

(Petitioner’s Note. This exception is necessary since the prescriptive provision is outside the ASTM C 926, i.e., the ASTM C 926 has its own requirements regarding the application of “coats” of cement plaster or “stucco”)

R703.6.5 Curing

The finish coat for two-coat cement plaster shall not be applied sooner than seven days after application of the first coat. For three-coat cement plaster, the second coat shall not be applied sooner than 48 hours after application of the first coat. The finish coat for three coat cement plaster shall not be applied sooner than seven days after application of the second coat.

(Petitioner’s Note. This is the prescriptive provision that should have the same “Exemption” as R706.6.4 above. This is a Scrivener’s omission that creates a conflict with methodologies allowed by the ASTM C 926 Standard required at 703.6 above.)

Discussion of ASTM C 926 Provisions and the Code Provisions.

The ASTM is a complete Stucco Standard for Code required fire, structural or wall covering applications. Materials, Proportioning, Mixing, Installation, Application, Curing, Timing, Coats, etc., are all wholly covered in the standard. The author has provided some excerpts from the ASTM C 926 standard that amend, modify or otherwise alter the provisions contained at R706.6.4 and R706.6.5. Accordingly, since the ASTM C 926 is the required standard at 703.6, these prescriptive provisions found at 706.6.4 and R706.6.5 require the exemption found at R706.6.4. The exemption has been placed at R706.6.4 but was omitted at R706.6.5.

ASTM C 926 PROVISIONS (SELECTED) INVOLVING THE APPLICATION AND CURING PROVISIONS FOUND AT R703.6.4 AND R703.6.5

8. Curing and Time Between Coats

8.1 Provide sufficient moisture in the plaster mix or by moist or fog curing to permit continuous hydration of the cementitious materials. The most effective procedure for curing and time between coats will depend on climatic and job conditions. (See X1.5.2.) 8.2 Sufficient time between coats shall be allowed to permit each coat to cure or develop enough rigidity to resist cracking or other physical damage when the next coat is applied. (See X1.5.2.)

X1.5.2 Time Between Coats and Curing for Portland

Cement-Based Plaster:

X1.5.2.1 The timing between coats will vary with climatic conditions and types of plaster base. Temperature and relative humidity extend or reduce the time between consecutive operations. Cold or wet weather lengthens and hot or dry weather shortens the time period. Moderate changes in temperature and relative humidity can be overcome by providing additional heating materials during cold weather and by reducing the absorption of the base by pre-wetting during hot or dry weather.

X1.5.2.2 In order to provide more intimate contact and bond between coats and to reduce rapid water loss, the second coat should be applied as soon as the first coat is sufficiently rigid to resist cracking, the pressures of the second coat application, and the leveling process.

X1.5.2.3 The amount of water and the timing for curing portland cement plaster will vary with the climatic conditions, the type of base, and use or nonuse of water-retentive admixtures.

X1.5.2.4 Some moisture must be retained in or added back to freshly applied portland cement-based plaster. If the relative humidity is relatively high (above 75 %), the frequency for rewetting a surface may be reduced. If it is hot, dry, and windy, the frequency of rewetting must be increased.

X1.5.2.5 Consider the physical characteristics of the structure as well as the previously mentioned conditions when selecting the method of curing. The method can be one or a combination of the following:

(1) Moist curing is accomplished by applying a fine fog spray of water as frequently as required, generally twice daily in the morning and evening. Care must be exercised to avoid erosion damage to portland cement-based plaster surfaces.

Except for severe drying conditions, the wetting of finish coat should be avoided, that is, wet the base coat prior to application of the finish coat.

Petitioner's Question to the Commission

The petitioner respectfully requests an answer of the following question...

When stucco is installed in accordance with R706.6 requiring compliance with ASTM C 926, is the **exception** for ASTM C 926 found at R703.6.4 – APPLICATION also applicable to R703.6.5 – CURING.

Thank you for your attention in this matter. If I can be of any help or provide you with any additional information please do not hesitate to contact me at my office 727-863-5147 or e-mail robertk@koning.com.

Respectfully submitted



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