

Evaluating Portland Cement Plaster (Stucco)

Since no two portland cement plaster (stucco) finishes will display an identical appearance or texture, stucco evaluation is a somewhat subjective exercise that can be normalized by utilizing a consistent assessment process.

General Concepts

To ensure a consistent process, discuss the evaluation methods prior to contract execution. Also verify that the project documents accurately reflect the expectations of the building owner and the wall and ceiling contractor.

A mock-up, reflective of the desired finished quality of the plaster, should be available. The mock-up should be reviewed and approved by all involved parties. A finish texture sample should also be approved prior to beginning application.

Viewing the Finished Surface

Walls and other vertical surfaces should be viewed at a distance of not less than ten feet and perpendicular to the evaluated surface. Ceilings should be viewed from the ground- or street-level directly below the evaluated surface.

In an instance where the required ten-foot perpendicular viewing dimension is unachievable - for example, in an entry or exit corridor - appropriately modify the viewing distance to accommodate the narrow area; however, do not modify the viewing angle. Evaluated surfaces should always be viewed at a perpendicular angle.

Finished surfaces should be assessed using normal lighting conditions. Do not use flashlights or hand-held work lights to evaluate surfaces. Do not evaluate surfaces when sunlight or other natural light is creating a critical light condition. Since sconce or similar indirect light fixtures can create a critical light situation, advise owners, architects, and contractors prior to the commencement of the project about the use and placement of such fixtures, and the expected results the lighting may have on the finished appearance.

Evaluate a finished surface in its entirety. Look for random areas of unacceptable grain or discontinuity and do not touch, pick at or rub the stucco. The finish should maintain a uniform texture throughout its surface and “eye catching” discrepancies or variations should not be visible, noting that some finishes intentionally display swirl marks or other random attributes. These are acceptable assuming that they are consistent across the surface of the stucco.

While the plaster color may exhibit some variations inherent in pigmented, cementitious applications and the texture of the plaster finish can create color variations, the finished plaster color should be largely uniform throughout. To enhance uniformity, the cement color finish may be fog coated or painted. Overall, an acrylic finish should be uniform in color unless specifically designed for a mottled appearance. Smooth finishes, for both cement and acrylic products, are susceptible to color mottling where light-colored spots or blotches appear on the surface of the finished plaster.

While no plaster surface is completely flat, The *International Building Code* limits variations in the surface of the second (brown) coat of exterior plaster to ¼ in. in five feet.ⁱ Depending on the type and texture of the finish used, a ¼ in. in ten feet variation is obtainable for the finished assembly and represents an acceptable quality of workmanship.ⁱⁱ

ⁱ 2018 *International Building Code*, International Code Council, Country Club Hills, IL; 2017; www.iccsafe.org The identified tolerance is in Section 2512.

ⁱⁱ For additional information on plaster tolerances reference ASTM International C1063-19 *Standard Specification for Installation of Lathing and Furring to Receive Interior and Exterior Portland Cement-Based Plaster*, West Conshohocken, PA; ASTM International, 2019, www.astm.org