In the exterior cladding world, the definition stucco refers to the final decorative cement coat in a portland cement plaster assembly, however, in various regions of the country stucco often refers to a two or three coat plaster assembly. Other names for a portland cement plaster assembly are: Hard Coat, Hard Coat Stucco, Traditional Plaster, Portland Cement Stucco, “Real” Stucco, Mineral Stucco and California Stucco. One Coat Stucco also has regional names and more information can be found in technical bulletin 60.130.

Since the invention of portland cement in 1824, plaster assemblies have been evolving from when the ancient Egyptians started cladding the pyramids with a mortar mix of gypsum and lime. The tried and true method for the last hundred years has been a “jobsite mix” of portland cement, lime, clean plaster sand and water. Its popularity is due not only from the appealing look and design flexibility of stucco but also its cost effectiveness in comparison with other claddings. Today crack reduction, higher integral color selection and energy code requirements that add flexible exterior insulation behind the stucco may require “upgrades” to the base plaster assembly.

1. **BASE ASSEMBLY WITH CEMENT STUCCO FINISH** (sheathing, water-resistive barrier[s], 3/8 inch scratch coat, 3/8 inch brown coat):

Baseline cost assembly, scratch & brown consists of a field mix conforming to ASTM Standard C926 or a proprietary factory-blended mix. It’s recommended all wood or metal framing to include a solid sheathing substrate (except on ceilings or soffits). A two-coat assembly is applied to CMU substrates (refer to technical bulletin 60.210). Cement stucco finishes may have color and texture variances with a limited color selection.

2. **BASE ASSEMBLY WITH ACRYLIC FINISH:**

Acrylic finishes offer unlimited color selection and a consistent texture “matrix”. A primer (sold by finish manufacturer) should be specified and applied to the brown coat prior to finish application. For more information see technical bulletin 60.120. Acrylic finish adds more crack resistance vs. cement stucco.

3. **BASE ASSEMBLY WITH BASE/SKIM COAT & ACRYLIC FINISH:**

One drawback with acrylic finishes (especially with Fine Sand or Semi/ Acrylic Smooth textures) is a lack of hiding power (they do not hide imperfections very well). A polymer-based acrylic skim coat sold by the finish manufacturer will reduce critical light issues and improve the overall look of finished elevation. This assembly increases crack resistance.

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4. **BASE ASSEMBLY WITH CRACK ISOLATION SYSTEM:**
(Acrylic-modified cement skim coat with fiberglass mesh & acrylic-modified cement stucco)

Skim coat, mesh and stucco are provided by one manufacturer to ensure compatibility. An acrylic admix sold by the manufacturer is added to stucco finish to provide a chemical bond to the skim coat. Adds superior crack-resistance particularly when a stucco smooth or “Santa Barbara” finish is specified.

5. **BASE ASSEMBLY WITH ACRYLIC LAMINA:**
(Fiberglass mesh, EIFS-Grade base/skim coat & acrylic finish)

This assembly offers the most crack resistance with the benefits of acrylic finishes (refer to Technical Bulletin 60.121) This assembly can add an additional 50% (or more) cost to the base assembly.

**FOOTNOTES:**
1. Standard framing is 16 inches on center. Framing spacing may be increased to 24 inches on center when a polymer enriched skim coat and mesh are applied over the brown coat of plaster.
2. Verify with the manufacturer that the finish coat is compatible with the polymer skim coat.