



## Stucco vs. Acrylic Finish

Portland cement plaster has traditionally been a three-coat cement system as described by current and past building codes. Within the last decade, acrylic finish has become popular as an alternative finish coat to the traditional Portland cement “stucco” finish. Both finish coats are suitable finish materials for cement base coats, can be integrally colored and are vapor permeable. In this document, the term stucco refers to a cement finish coat.

Regions of the United States seem to have a preference to one or the other finish coat material for Portland cement plaster bases. For example, traditional cement finish coats are more popular in the southwest and acrylic finish coats tend to be more popular in the north. However, both finish materials may be used in either region.

Designers must choose which finish material is most appropriate for the building and best meets the desires of their client. A checklist of the properties is one good way to help decide which material is best suited to a project. Each product has strong points to consider. Neither product is the answer for all projects.

### TEXTURE:

Cement finish has practically an unlimited variety of textures from a Santa Barbara/mission finish, lace texture, dash, sand finish, old English to comb texture. While acrylics have some range of texture, most acrylics are applied in a sand finish texture, and the wide-range of texture choices is not their strongest suit. Smooth finish is possible in both materials, but not recommended as a smooth finish tends to crack and the smooth texture highlights minor imperfections. Designers are encouraged to select a finish with some texture to hide minor hand applied imperfections and cracks that are inherent with cement plaster systems.

### COLOR:

Acrylic finishes can come in just about any color imaginable and can be matched to almost any shade desired. The consistency of color is very good with acrylics, even in darker shades. Stucco, being cement based can only hold so much pigment, and dark color tones are not recommended. Stucco works best in light pastel shades, and some slight variation in color shade should be expected. This is particularly true with stucco sand finish-texture. The water needed to float the sand texture can cause colors to migrate and be blotchy, the darker the color, the more blotches. Colored cement stucco can be “fog” coated, which is a good method to improve the color consistency in cement finish coats.

### APPLICATION:

Stucco is a natural cement-based material; acrylic finish is a synthetic man-made coating. Stucco cures to a hardened state while acrylics dry to a hardened state. This is a critical difference when considering environmental conditions during application.

Acrylics should be thought of as a quality thick paint with an aggregate added for texture.

Acrylics dry from the outside in and can be sensitive to environmental conditions and should not be applied in temperatures below 40 degrees F (4°C). Air circulation is as important for drying as the temperature, especially in humid conditions. Cement stucco finish “cures” as opposed to drying and can be applied in temperatures as low as 35 degrees F (2°C). *(continued on back)*

Cement finish coats are a nominal 1/8 inch thick and have the ability to fill small imperfections in the base coat. Acrylic finish coats are paint-like in their characteristics and have very little fill capability. This same paint-like characteristic makes a light colored (white) acrylic difficult to cover some darker base coats and the use of a primer over the base coat may be advisable.

For acrylics or cement finish, the Portland cement plaster base coat must be cured a minimum of seven days before applying the finish, but a longer cure time is beneficial. It gives the building additional time to “find itself” or settle before the finish coat is applied. When the construction schedule can allow the added time, TSIB recommends a 14 to 21 day interval between application of the brown coat and finish.

#### **WATER REPELLENCY:**

Traditional cement stucco, like all cement products, will absorb surface moisture and darken when wet. Acrylics, similar to a nylon stocking, will repel surface moisture, but moisture will pass through as a vapor. Acrylics should never be mistakenly used or sold as a method to “seal” the building from water intrusion. Properly applied Portland cement plaster base coat will keep moisture out while remaining vapor permeable. It is advisable that all finish coat materials, including paint, be a “breathable” membrane. Acrylic finish should never be used on horizontal surfaces or other areas susceptible to ponding water, as they can soften with prolonged exposure to moisture. An advantage of acrylic finish is that they retain their color when wet which is a consideration in wet climates.

Many cement stucco manufacturers offer clear sealers that will provide the same water repellent benefit as acrylics. Most only last a year or two and may have to be reapplied every few years. This is a simple procedure and not very expensive.

#### **FLEXIBLE:**

Cement finish coats are not flexible and hairline cracks will transfer through the finish. Acrylic finish coats are more flexible when initially installed and tend to hide minor hairline cracking in the first year or so. However, acrylic finish coats are not considered an elastomeric paint coating. After exposure to the sun, the acrylics tend to harden slightly and hairline cracks may appear at a later time.

The TSIB cautions designers about the use of elastomeric coatings over stucco, true elastomeric coatings tend to be vapor barriers and can hinder membrane drainage.

#### **MAINTENANCE:**

Both stucco and acrylic finishes are relatively low maintenance and both can be painted when a change of color is desired. Acrylics have proven to work well over the last ten to fifteen years. The life expectancy of a stucco finish coat has been proven to be several decades.

#### **CONCLUSION:**

Both finishes have strong points and limitations. Acrylic finish coats cost more for material and labor to apply. Designers should review the above list of compared features and discuss with the building owner which finish is most appropriate.

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