

Coating Options For New Stucco

Stucco may be used to finish interior or exterior walls, over a variety of building materials; it's generally inexpensive, known for its durability, and has a minimal need for maintenance. It's performance in a variety of climates, enduring wet/dry and freeze/thaw cycles and the extreme desert heat has made stucco a global standard in cladding materials.

Types of Stucco

Stucco is generally encountered in two types:

- **Standard (traditional)** Standard stucco is composed mainly of Portland cement and lime in varying levels; it provides high comprehensive strength in the finished coating, good surface hardness, and low thermal expansion rates. It also provides high moisture permeability.
- **Acrylic stucco** is a polymer-modified material that combines aggregates ranging from about 2 mm (coarse) to 0.5 mm (fine), with filler pigments. Acrylic stucco finishes are often used over exterior foam insulation as part of EIFS (Exterior Insulation and Finish System). The acrylic stucco surface is less alkaline than the standard stucco and is a finished product on its own.



Residential Property with Painted Stucco Finish

Coating Products and Systems

NORMAL ENVIRONMENTS - LATEX

Latex systems are widely used on both standard and acrylic stucco on residential, light industrial and commercial buildings. The alkali resistance of most latex polymers is much greater than comparable alkyds, which makes latex the prime choice for stucco surfaces.

- **High-Performance Architectural Latex** - A high-performance latex topcoat is designed to provide two to three times the exterior durability of conventional latex topcoats. An Alkali resistance primer should be used where the pH of the surface to be coated is above 8. The alkali resistant primer provides protection from deterioration resulting from the alkalinity of the substrate.
- **Latex** - Latex is widely used on both standard and acrylic stucco surfaces on residential, light industrial (warehouses) and commercial buildings.

Latex Gloss Levels

The above systems are usually specified in one of two gloss levels. The flat version reduces the visibility of surface irregularities while providing improved resistance to dirt retention compared to a flat finish. The semi-gloss version is often used for accent striping and trim on smoother surfaces and where a higher degree of cleansability is required but should be avoided in areas where standing or ponding water may occur. The low sheen version does not breathe as well as the flat.

AGGRESSIVE ENVIRONMENTS - ELASTOMERIC

Elastomeric coatings have greater extensibility than conventional paint coatings due to the polymer or binder types used. The finish is somewhat softer than most coatings; for this reason, they are not generally recommended in areas prone to marking and dirt pick-up, such as lower walls in high traffic areas.

Elastomeric work well on porous surfaces, such as stucco where hairline cracking may occur. These coatings are generally produced at 50% solids by volume or greater to improve filling properties and reduce shrinkage during the drying period.

Problems to look for when coating Stucco

Because stucco is a cement-based material, issues related to alkalinity and moisture may be present.

Alkalinity - Stucco, like concrete, possesses a relatively high pH when new, and this should be measured with a test kit before coatings are applied. There is a general guidance of waiting at least 30 days before coating stucco, although the length of time may vary depending on the composition of the stucco material and its particular service environment.

Moisture - For coatings to work properly, new stucco surfaces must be sufficiently cured and dried to a moisture level suitable for painting. The appropriate environmental conditions (low humidity, moderate temperature cycling, and no precipitation) should be considered to help promote drying.

A small amount of excess water can be tolerated and while it may extend cure time, it can also yield a more durable finish. On the other hand, an excessive amount of excess water can cause multiple problems. Shrinkage cracks in the stucco surface may result; If moisture migrates through these cracks and isn't permitted to dry prior to coating application, the coating film may trap the moisture within, which can lead to blistering and adhesion loss.

Problems with moisture occur:

- when it is present in excess within the stucco finish.
- when it comes from external sources of water.
- when it is present in the surface to which the stucco is being applied.

Surface Preparation

The surface shall be dry, and all dirt, dust, and loose and powdery residues shall be removed.

Oils and grease shall be removed by an emulsifying cleaner or a TSP wash (50 grams per liter or ½ lb. per gallon, plus or minus, depending upon requirements) followed by a thorough rinsing with clean water.

Any large cracks or holes should be repaired by the stucco contractor and allowed to cure completely. Small cracks or holes can be filled with an appropriate exterior caulking or filling compound and shall be allowed to cure completely.

If large amounts of efflorescence are on the surface, acid etching, or mechanical removal, may be advised. After any application of muriatic acid, the surface must be flushed with large amounts of clean water to remove residues and allowed to dry thoroughly. However, before treating the efflorescence, which is a result of water migration, the source of moisture must be determined and eliminated or it will return.

The pH of the stucco surface must be within the stated guidelines for the specified coating — typically a maximum pH of 9 or 10 — so pH testing should be done prior to coatings application.





Products tested to MPI Green Performance and MPI Extreme Green have the lowest VOC, with proven high-performance. Look for these logo's on the paint cans.

[CLICK HERE](#) for more information.

The Master Painters Institute Inc. © 2017