

Stucco



Stucco Manufacturers Association

Base and Mesh Systems for Crack Reduction

Base and mesh systems are specifically designed to significantly reduce surface cracking in new and existing plaster systems.

Stucco is widely used all over the world as an exterior cladding, because of its aesthetic appeal, durability, fire resistance, design flexibility, low cost and ease of maintenance. Stucco is by nature hard and strong, but it is relatively thin and brittle and will crack when subjected to stresses that exceed its tensile strength.

In recent years, consumers have become less tolerant of cracks in their stucco finishes. As a solution to minimizing their appearance, contractors and manufacturers have developed Base and Mesh Systems. Base and mesh systems typically consist of a polymer-modified cement coating with embedded alkali-resistant mesh.

Base and mesh systems are an excellent choice for commercial, residential or institutional projects. They are specifically designed to significantly reduce surface cracking in new and existing plaster systems. By embedding the mesh into the polymer modified coating, the base and mesh systems reinforce the stucco and help to reduce the appearance of cracks. Base and mesh systems are ideal for one coat stucco, three coat stucco, masonry, brick and concrete surfaces.

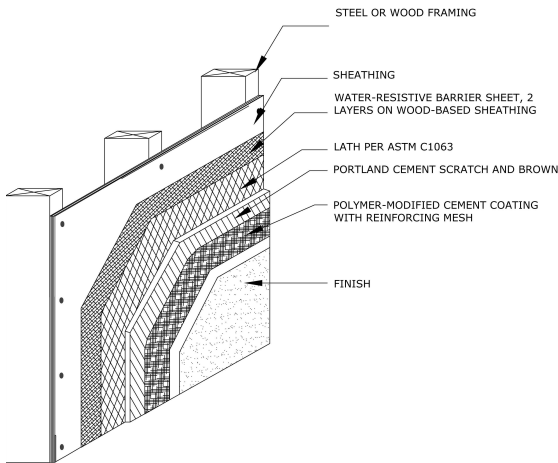
Surface Preparation:

In new construction, the polymer-modified coating is applied over a properly cured plaster base coat, typically referred to as the brown coat. The base and mesh system should not change cure time or moist curing of the brown coat. Smooth concrete should be etched and poured concrete must be free of all bond breakers prior to application of the polymer-modified base coat.

In existing construction, remove surface contaminants such as dust, dirt and loose paint. In many cases using the base and mesh system eliminates the need for sandblasting. Additional preparations may be necessary, so consult the manufacturer's data sheet for specific requirements.

Mixing:

Polymer-modified cement coatings are mixed with clean potable water for 5 minutes, resulting in a homogenous consistency similar to that of exterior portland cement brown coat. Do not entrain air by over mixing. Allow the mixture to stand for 5 minutes, then stir again, re-tempering once only for workability.



Application:

Apply 1/16" to 1/4" of the polymer-modified cement coating to the properly prepared substrate and immediately embed mesh in the coating. Embed mesh into the wet coating by troweling the mesh to a wrinkle-free surface. Ensure that no mesh is visible through the cement coating. If necessary, reapply enough coating to cover mesh. Float the surface with a green sponge float to ensure an optimal mechanical bond for the finish plaster coat. Full adhesive bond strength is achieved in 1-4 days depending on humidity and temperature. Immediately clean all tools and mixing equipment with water after use. It is recommended by some manufacturers that a bonding agent be used when cement finishes are to be applied over base and mesh systems. Other manufacturers recommend the finish coat be applied over the base and mesh system within a few days to prevent any chance of delamination. Consult the manufacturer's data sheet for instructions.

Limitations:

Base and mesh systems should not be expected to eliminate larger cracks caused by significant external and recurring forces such as structural movement. Base and mesh systems are most effective for controlling minor structural and shrinkage cracks in the base coat. These systems should not be used when ambient and surface temperatures are expected to fall below 40°F or when temperatures exceed 110°F during application and curing time.

Additional Information:

For specifications, coverage, storage and additional information see SMA member's product literature.

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