

Synthetic Stucco

A new exterior cement panel looks like stucco, but can withstand 125mph hurricanes and two-hour fires.



A fully integrated synthetic stucco system which uses a hard, fire-resistant substrate has been developed by the U.S. Gypsum Company.

The new USG hard synthetic stucco system and standard Exterior Insulated Finished System (EIFS) both offer an elastomeric stucco-like finish, but the similarity ends there.

Instead of using a foam/styrofoam substrate for the finish, the USC system incorporates the tough, fire-resistant cement board substrate, plus a number of other critical performance advantages.

A ½-inch thick aggregated portland

cement panel—reinforced with a polymer-coated, woven-glass fiber mesh embedded in both sides—USG's "Durock" exterior cement board substrate can withstand hurricane-force winds and water penetration up to 125 miles an hour.

Installed in a three-step process, the board is first applied and joints are treated; secondly, the basecoat is applied and followed with the application. By contrast, typical soft insulating systems may require up to seven steps to complete all the installation steps.

Traditional three-coat stucco application procedures are also considerably more time-consuming. Just waiting for

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The system can be quickly and easily installed in a 3-day process

the base coat to cure usually requires several days, but with the Durock stucco system, the delay is only 24 hours.

The panels offered one- or two-hour fire ratings on both sides.

A final difference between the two types of exterior systems is design versatility. The stucco-like Durock exterior finish can be easily—and effectively—used in conjunction with ceramic tile, thin-cut stone tile, thin brick or stone aggregate/epoxy matrix exteriors. The same substrate is used as a base for four finishes: stucco, ceramic tile, thin brick, or stone aggregate.

Durock also stands up to knocks and impact caused by cars, kids, ladders, tree branches and other normal wear and tear on the outside of a building.

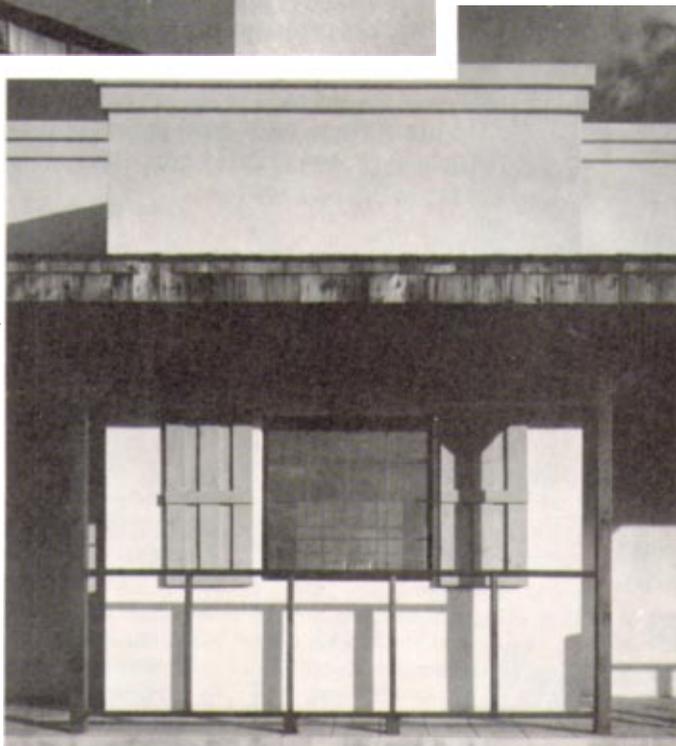
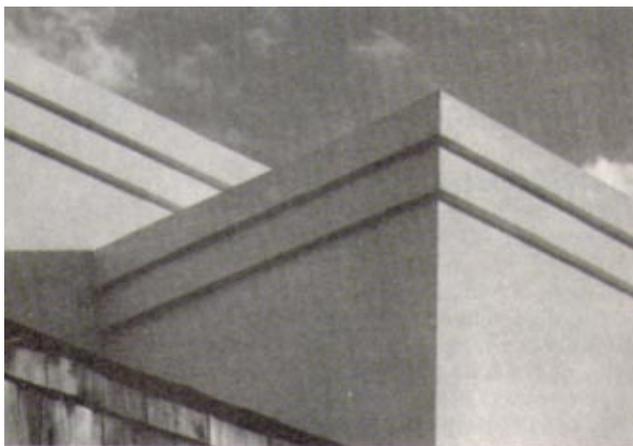
Fire Rated Performance...

Another important benefit is the fact that the panels offer one- and two-hour fire ratings. These fire retardancy characteristics were evaluated by independent tests at the Construction Technology Laboratories and Underwriters Laboratories. The tests showed the system provided both one- and two hour fire ratings (depending on the components) on both sides of the wall.

Since cement boards are mechanically fastened to studs, there is also no chance for adhesive failure.

After evaluating the USG system for a wide range of performance characteristics, including flexural strength, water absorption, nail pull-off resistance, and surface burning characteristics, the Construction Technology Laboratories report concluded by noting:

“The Durock panels faced with Durock exterior finish was found to exceed the requirements for the intended applications. It is judged to be an excellent wall system when constructed in



*Doc's Restaurant
in El Paso, Texas*

It can withstand hurricane winds and up to 125mph water penetration.

conformance with USG specifications for installation. The life expectancy and performance of this composite panel should compare favorably with systems such as masonry veneer or stucco over wood or steel studs now in use in the low-rise and mid-rise marketplace.”

Construction Technology Laboratories also tested the system for freeze/thaw resistance. After 150 freeze/thaw cycles the board displayed no deterioration.

The complete system includes: the 4x8-ft. cement board substrate panels, coated screws, exterior tape, basecoat, and exterior finish.

Two years of research went into the development of the “breathable” elastomeric finish. The flexibility of the finish tolerates movement due to thermal expansion, wind loading and humidity. It is available in 20 premixed colors, can be custom-mixed on request with a minimum order, and can be troweled to authentically capture a variety of stucco looks.

Installs Faster, Easier . . .

USG claims field testing and subsequent “real life” applications have demonstrated that its system can be installed considerably faster than typical soft insulating systems in a three-day process: day one is board application and joint treatment; day two is basecoat application; and day three is finish application.

The fire-rated Durock exterior finish system was recently installed on Doc’s Restaurant in El Paso, TX. The system, which includes an elastomeric synthetic stucco exterior applied over a base coat, provides either one or two hour fire ratings.

The Durock exterior finish system provides an authentic stucco appearance over the hard-sided Durock exterior cement board substrate. The finish is available in a choice of 20 colors and can be troweled on to achieve a variety of stucco textures. 