
Going For The Advantages

New exterior wall system provides flexibility of using real stucco or one of the synthetic stucco (EIFS) systems

Until recently, there were two basic methods for constructing exterior stucco walls. You could either use the real thing—conventional three-coat stucco; or you could install one of the “soft” stucco-look Exterior Insulating Finish Systems (EIFS).

Both methods have their benefits. Conventional stucco provides a hard, dent-resistant surface; while EIFS usually installs more costeffectively.

Now, however, there’s a third alternative—what United States Gypsum Company calls the DUROCK® Exterior Finish System (DEFS). This “hard” stucco-look system combines the positive features of conventional stucco and EIFS . . . and it installs more quickly and costeffectively than either.



1. Installation begins with the application of a required water barrier such as Tyvek Housewrap, as seen here, or No. 15 asphalt felt. Then, panels are attached horizontally or vertically to the studs using screws spaced a maximum of 8-in. o.c. (hot-dipped galvanized roofing nails can also be used to attach the board).

The system’s installation benefits are among the primary reasons why the Buccola Corporation, a Deer-field, Ill. commercial development company, recently began specifying the product. For years, Buccola had been utilizing conventional stucco and, to a lesser degree, EIFS, on its highly successful suburban Chicago industrial and light commercial projects. The company used the USG system for the first time on a recently completed 11,000 sq. ft. retail building located in the RiverTree Court shopping center, Vernon Hills, Ill.

The building, which will house a 6,500 sq. ft. BlockBuster Video outlet and several other retail shops, was designed and built by architect/developer Chuck Buccola. He also owns and manages the property.

Buccola is employing the system as an 8-ft. high canopy fascia wall, extending around three sides of the RiverTree building.

“We decided to go with the system because it provides a savings on installation time and because it gave us a hard, rigid finished wall,” he says. “We’re very happy with the results and we will definitely be using the system again.”

“Hard” Stucco Wall . . .

Unlike typical EIFS products, the DUROCK Exterior Finish System provides a hard, non-penetrable substrate for application of the stucco finish. It also provides excellent design versatility. The stucco finish can be complemented by ceramic tile, thin brick and/or stone aggregate/epoxy matrix exteriors—all applied over the same cement board substrate.

The 4x8-ft. by ½-in. thick cement board substrate panels are made from aggregated portland cement, reinforced with polymer coated glass fiber mesh.

The finish system as a whole has a one hour fire-rating (when used with steel studs). It resists high temperatures, humidity, wind, water, and repeated freeze-thaw cycles. The stucco-look finish is fade-resistant and expands and contracts with normal substrate movement without cracking.



2. Next, tape is applied over the joints and the exterior basecoat is forced through the tape to completely fill and level the joints. The treated joints are allowed to cure for at least 24 hours.

The other components included in the system are: anti-corrosive screws (for attaching the boards to either wood or non-load bearing steel studs), exterior tape, basecoat and exterior stucco-look finish. The finish comes in 20 premixed colors and is available custom-mixed. It can be troweled to capture a variety of authentic stucco looks.

Labor Savings . . .

AWCI member William A. Duguid Company, Mount Prospect, Ill., served as subcontractor for exterior wall construction on the Buccola RiverTree Court building. Duguid, one of the leading wall and metal framing contractors in the northern Chicago suburbs, has worked with the Buccola Corporation on a variety of previous projects.

According to company vice president, Matt Duguid, approximately 3,600 sq. ft. was applied to the building fascia.

“They (the Buccola Corporation) originally wanted to go with conventional stucco on the fascia,” Duguid explains. That’s what they had commonly used in the past on this type of construction . . . and they were going to go with it on this job.”

Duguid continues, “When I first worked out the numbers on this, we found that we could achieve a savings of \$3,500 in comparison to conventional stucco. That’s maybe 10 or 12 percent of the entire job cost—a pretty significant number.”

Duguid explains that the cost savings is realized primarily in substrate construction and plastering time.

“For conventional stucco, your lathing crew has to put up gypsum sheathing and metal lath,” he notes. “That’s two operations in comparison to only one (attaching the cement boards to the studs). So there’s a savings there.

“When it comes to plastering,” he continues, “you’re putting on about 1/8-inch worth of materials (basecoat and finish coat) with this new system, in comparison to 3/4-in. of materials with conventional stucco. Naturally, when there are less materials to apply, the job goes faster.”

“We had the total job figured out as taking 30-35 man-days against 60-70 man-days with conventional stucco,” Duguid concludes.



3. Then, the ready-to-mix, portland cement exterior basecoat is applied over the entire board area at a minimum thickness of 1/16-in. and allowed to cure for at least 24 hours.

Faster Than EIFS . . .

Duguid also felt the RiverTree installation compares very favorably with EIFS on this particular project.

“We figured that an exterior insulating system would have taken 30-35 man days to install,” he maintains.

Installation of the DUROCK system begins with the application of a required water barrier—either Tyvek® Housewrap or No. 15 Asphalt Felt. In this case, Tyvek Housewrap was attached directly to the building’s light gauge steel framing. The installation takes in a three-step process:

First, the 4x8-ft. boards are screw-attached over the Tyvek onto the studs and the joints are treated. The boards can be applied either horizontally or vertically. The special screws (hot-dipped galvanized roofing nails can also be used) are spaced a maximum of 8-in. o.c. The cement board can also be attached to soffits up to 4-ft. wide, with screws spaced a maximum of 6-ft. o.c.

Exterior tape is applied over the joints and then the basecoat is forced



4. Finally, the exterior finish is applied in a minimum 1/16-in., maximum 3/16-in. thickness using conventional tools and techniques to achieve a variety of stucco looks. Here, the finish is being troweled on and then floated to achieve the desired look.

through the tape to completely fill and level the joints. As an option, the joints can be pre-filled with basecoat before the tape is embedded and leveled. The treated joints are then allowed to cure for at least 24 hours.

The second step involves application of the exterior basecoat. The ready-to-mix portland cement mortar basecoat is applied over the entire board area at a minimum thickness of 1/16-in. It is allowed to cure for at least 14 hours.

The third and final step in the installation is the application of the exterior finish. It is applied in a minimum 1/16-in. thickness and a maximum of 3/16-in. Using conventional tools and techniques, it can be textured to achieve a variety of stucco looks.

The elastomeric properties of the finish enable it to “give” with normal building movement resulting from thermal expansion, windloading and humidity. That minimizes surface cracking and water penetration. 