PENSACOLA JUNIOR COLLEGE

New Construction and Retrofit with an Exterior Insulation and Finish System

By Terry Dittenber

As a retrofit solution, EIFS offered the particular advantages of being lightweight, which eliminated the need for additions to the existing structure that other materials might have required, and they did not require the building to be closed during retrofit operations.

From a building operating management standpoint, administration officials noticed “energy bills are lower now, thanks to EIFS insulation qualities. There has also been an increase in enrollment, and we feel part of this is due to the fact that students feel that the face-lift gives a more pleasing environment and reflects community’s pride in educational facilities,” says a community leader.

EIFS was combined with brick and tile for decorative effect on the Simon William Boyd Building at Pensacola Junior College.

The District Board of Trustees for Pensacola, Fla., Junior College has, over the years, been discovering new benefits of exterior insulation and finish system in new and retrofit situations. They were so satisfied with exterior insulation finish systems for the college’s new 50,000 square foot Baranco Center for Science, Engineering & Technology building in 1990 that they decided to use it again to retrofit various campus administration and educational buildings in 1991 and 1992.

Design flexibility

EIFS was combined with brick and tile for decorative effect. Bright colored tiles were used as accents in conjunction with the light color of the synthetic finish. EIFS also proved its design versatility when applied over the curved and articulated forms designed by the architect for the Baranco Center. Because they are flexible, synthetic finished perform much better than traditional stuccos on such types of shapes.
“Exterior insulation and finish systems have often been accused of not performing well in heavy traffic areas,” explains Walter Smith, architect, of Bay Design & Associates, the renovation designers. “This is unfair to the systems because solutions do exist. For the retrofit of Pensacola Junior College administration and educational buildings, we specified a heavy-duty system to be used on ground level, where traffic is high.”

As for the earlier projects, Parex System 3 was able to provide the specified requirements and was used on the administrative and educational building retrofit.

Typically, a high-impact system requires two layers of reinforcing mesh. A heavy-duty fiberglass mesh is embedded into a first 3/32” thick base coat layer. After this first layer is partly dry, a standard reinforcing fabric is installed into a second base coat layer to a thickness of 1/16”. So in addition to the high strength and double mesh, the total thickness of the base coat required is 1/8”, compared to the 1/16” nominal thickness of base coat required for standard PB systems by the EIFS Industry Members Association EIFS specifications.

The use of tracks as an alternative to backwrapping provides a more reliable protection of the insulation board edges and a welcome time-saving accessory to applicators.

The one- and two-story building specifications called for the use of tracks around windows and doorways.

The edges of EIFS insulation boards at expansion joints, grade level, windows and other exposed conditions are particularly vulnerable. These edges are customarily protected by backwrapping, which means fastening or adhering 1-1/2 to 4 inches of reinforcing mesh around the edge and back of the board (see above illustration). While this extra reinforcement adequately guards the insulation board edge, its application can be difficult and time consuming.

To facilitate the application of an edge guard, some manufacturers have encouraged the use of track components as a method of protecting the insulation board. Track components help to ensure uniform edges by giving the contractor a guide for applying the coating.

Tracks components are not a new development in the EIFS industry, but unlike earlier versions, the new generation has a flange that wraps around the face of the insulation. This flange is perforated with numerous holes that allow the track to fully integrate the EIFS base coat with the insulation board. Because the reinforcing mesh and base coat that cover the face of the insulation boards also overlap the perforated track flange, the lamina keys to it to provide a durable weather seal. This binds these elements together into a unified cladding.

Donald Moore of Gulf Coast Specialty, the contractor in charge of the EIFS on Pensacola Junior College retrofit, is a very much in favor of tracks. “We used Parex 3.61 Tracks. It may appear as an extra material cost, but this is quickly compensated for by saving installation time. In addition, it is easier for the applicator, and the
Specifications call for the use of tracks around windows.

Building still in use during retrofit operations.

weather tightness of the building is increased.”

Retrofit and Service

The various Pensacola Junior College projects demonstrate the kind of working relationships that are going to prevail in the coming years. When the owner, the architect, the contractor and the EIFS distributor and manufacturer work together, the solutions are exactly adapted to the needs of the construction and satisfactory to the client. As commercial retrofit is a big segment of the construction industry today, it is important to get used to this team work

About the Author

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