Swinging With the Trends

Exterior Insulated Systems Are Definitely Part of the Scheme of Today’s Construction Market—and Profitable

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What is there about the growth picture for exterior insulation and finish systems (EIFS) that would attract wall and ceiling contractors to get involved?

Although current projections regarding the future of some other wall claddings is for survival at best, results of private studies indicate substantial growth for EIF systems for the balance of this decade.

For 1983, in new construction, the market share for EIFS stands at about 5% of the overall exterior wall volume. Growth is projected at a rate of 20-25% annually between now and 1990. This would bring the industry from its existing level of some 50+ million square feet of installations annually to about 100 million square feet per year within six years. An independent researcher estimated that the industry could reach 65 million square feet during 1984. At that rate the EIFS manufacturers will be striving to expand their networks of certified applicators in order to meet the demand.

This will create opportunities for many contractors that haven’t broken into the field as yet.

When considering which EIF system manufacturer to choose, I would recommend looking for the ones with broad technical competence, a high degree of product quality control and the best training programs.

The exterior insulation business is one where good workmanship is especially critical, so it is important to become affiliated with a manufacturer that provides a training program.
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designed to help you learn to install a quality exterior wall system that you can not only earn a profit from, but stake your hard-earned reputation on.

Among sources available for checking the qualifications and reputations of EIF manufacturers are: AWCI, EIMA (Exterior Insulation Manufacturers Assn.) and the OP&CMIA (Operative Plasterers and Cement Masons Int’l Assn.) You may want to check with some building owners, architects and designers who have had some success with the various systems. Of course, trade magazine advertisements and articles are also helpful.

As for what EIF manufacturers will be looking for in a new contractor, I expect they will mainly be interested in the quality of your work. I expect also they will want to be satisfied that you pay your vendors promptly, and will investigate your general financial stability. Company size will be a factor in areas where large jobs are often let. Also, of course, that subjective element called “chemistry” should also be right between your people and theirs.

Area distributors will most likely be asked to pass judgment on your credentials since they will be your primary contact.

Once Accepted . . .

Once accepted as a potential approved applicator, you and your distributor would arrange for the training of your supervisors responsible for on-site quality control. I would recommend that your supervisors get up to two days of concentrated training to equip them to
EIF systems make for beautiful work. This ISPO job on the State Attorney General’s office building in Sacramento, CA, demonstrates the beauty—and durability—of exterior construction.

retrain mechanics under their direction. Personnel from distributor companies should be available to help supervise your first job and technical people should be available for on-site consultations and assistance.

You will be expected by most suppliers to abide by their recommended procedures and specifications. In return, manufacturers will try to help make you more successful by bringing you additional business and by shipping products to you promptly. Most companies in our industry have good reputations on both fronts.

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There usually is no limit on the number of approved applicators allowed to work within a distributor’s jurisdiction as long as the work demand is sufficient. The major manufacturers ship nationwide via their distributor networks. Where there are voids, the company may choose to sell directly to the contractor. In a state where there is not enough demand to warrant a full-time distributor, one from an adjacent state would probably be of assistance.

It is possible for an applying contractor to get into the panel-making business without prior experience, but it should be remembered that panelization can be considerably more complicated than field-applied work. The ideal is for the contractor to gain experience with field-applied work first. Suppliers of steel studding (Inryco, for example) may be willing to assist you with getting into the panel field. We know of a consultant in Albuquerque, for instance, who designs systems and provides shop drawings for customers anywhere.

**Can Work Indoors . . .**

The most obvious advantage to having the panel-making capability is that panels can be prefabricated in weather-controlled plants so you can work year round. Panel mechanics in the Sun Belt work indoors in summer, just as they work with protection during winter in the northern states.

Panels are being used for all types of construction today—even residences and one- and two-story buildings. You can sometimes get better-quality work with less waste under good factory assembly conditions. There has to be an up-front investment to get into fabricating, of course, but you should be able to do application work less expensively.
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thereafter. Some companies concentrate on specialized markets such as churches, condos, and prefab houses. The largest panel applicators are in high-rise markets, but there’s a growing interest in panelization everywhere.

We’re sometimes asked what concerns still remain about EIF systems among specifiers who have not had their first experience with them. There was a day when we had to encounter many “Doubting Thomas” questions, just as any emerging technology does. Now that thousands of buildings with exterior insulation are in place around the country, there aren’t many skeptics left. As an industry, we’ve done testing in all areas of customer concern, and this data reassures acceptance by most designers and specifiers.

As for durability of the systems, we can point to the thousands of EIF installations in Europe. Many have been up for twenty years or more, with no more problems than you would find with any type of cladding, probably fewer. During a recent trip to Munich, I saw some of these older buildings first hand, and they’re all in fine shape. As for impact resistance, we can answer that one very simply and convincingly by repeatedly striking a wall sample with a hammer. To get sufficient protection for that amount of abuse, you must use a heavy-duty reinforcement. In one test, we were able to pitch a baseball at speeds up to 90 mph before damage could be detected.

Various Reinforcements . . .

Manufacturers offer several varieties of reinforcing fabric systems with varying levels of impact resistance. You virtually can get all the protection you want, yet suppliers still are working on fiberglass fabrics which are even stronger.

Another feature we like to show is how easily these systems can be repaired. Once a proper repair is made, it’s usually tough to tell there has been any change. An overwhelming percentage of people who have had personal involvement with EIF
systems will say they won’t hesitate to use them or recommend them again—as long as they are properly installed.

All major code organizations, including ICBO, BOCA AND SPCCI, have approved EIF systems as alternate forms of construction. Less than a handful of cities have withheld approval, but for all intents and purposes, codes are not a prohibiting factor.

EIFs are approved for interior use as long as you exclude the EPS insulation. Actually, you can use the insulation, but it must be covered with gyp. As long as the gyp stands between the interior and the insulation, you should have no problem. Codes require that insulation be separated from the inside of a building by a fifteen-minute barrier, typically half-inch gypsum.

Meantime, acrylic finishes are frequently applied inside on properly-prepared substrates, and the market is growing. You can achieve a nice effect when finish colors are coordinated on both the outside and inside. We see a lot of this in Germany, for example.

As for vulnerability to winds, one recent test took place in August which should help allay any remaining concerns. The exterior insulation and finish at the Nassau Bay Hilton outside Houston took winds of up to 100 mph from Hurricane Alicia with no apparent difficulty. (One section of paneling came off the elevator penthouse, but it was attached to flashing that was blown away with the roof.) Our laboratory wind load tests have shown that a system constructed similarly will withstand velocities higher than that. Remember, though, that the EIF system is not designed as the
structural element, and relies on the backup wall to resist intense windloads. Although the system may be subjected to these severe loads, it does not resist them as a structure.

Are EIF finishes really color fast? Typically yes, except for some colors required by owners which use organic pigments. Most standard colors in EIF finishes use iron oxide pigments, the most colorfast available.

As always, people are concerned about surface cracks. EIF finishes are very crack resistant but are not necessarily crack proof. They resist cracking far better than traditional stuccos, for example, but significant structural movement in the substrates eventually will cause the system to crack. Under normal circumstances, acrylic finishes are flexible enough so they won’t crack.

**Many substitutions . . .**

EIFs are being substituted for every type of wall cladding under the sun. Yet, I’m sure that in some people’s minds we’re offering stuccos with acrylic substitutes. EIF manufacturers don’t think of their products as stuccos, don’t refer to them as such, and would rather that they not be thought of in that way. The reasons for this are obvious. I can think of just two

What makes EIF systems so attractive—from a contractors standpoint—is that panels can be built indoors and then easily, conveniently trucked to the jobsite.
reasons why an owner would request stucco: one would be a difference in cost of material, and the other would be that he’s accustomed to stucco and hasn’t learned the differences. Those differences are considerable. Acrylics are more flexible, have better adhesion, are more crack resistant, have better and more-consistent integral coloring, and are lighter in weight. Acrylics go on about one-third as quickly, with a light trowel application. Textures can be applied in almost simultaneous steps. Most are one-part mixes that you just take out of the can and put on the wall. No water and sand to be added. Acrylics weather better and require no painting. It’s simply a question of technology bringing us better answers. Stuccos may not disappear, but I really can’t see how they can compete with us, head to head over the long term.

Many contractors ask us how installed costs compare with those for other exterior envelopes. this is how some representative systems compare: EIFs with metal stud framing run between $5/ and $9/sq. ft. Without framing and substrate, the four-component systems run between $2.50 and $6.50/sq. ft. (most are in the $3.00 to $5.00 range) with materials representing about half the total installed cost. Painted concrete block (with interior insulation) compared most favorably ($4.50 to $5.00), then insulated concrete tilt-wall at $5.25 to $8.00. Insulated metal walls (site-erected) fall between $6/ and $10/sq. ft. Metal curtain walls with integral insulation run from $12 and up, and brick and block, with interior insulation, between $11/ and $15/ sq. ft.

From the adhesive on the substrate out to the finish, the typical system weighs one to two pounds per sq. ft. When you add gyp and studs to the system that puts it up around seven pounds. This lightness can add considerably to savings in installation time, and structural and foundation costs.

More information about EIFs can be had from the Exterior Insulation Manufacturers Assn., 1133 15th St., NW, Washington, DC 20005. EIMA has twenty member companies, most of which are EIF system manufacturers.