Three experts on panelization

White says panels are a necessity for today’s marketplace

“The current inflation rates, which have pushed close to 20 percent, have mandated that architects, builder-developers, contractors and manufacturers identify areas to reduce in-place costs.” So speaks Donald B. White, advertising manager for Compo Industries, Inc., another of the firms manufacturing exterior insulation finish systems used in panelization.

White says that two major contributing elements are compounding the current inflationary spiral: a high prime interest rate (on a short supply of lending capital) and the continued rapid escalation of energy costs.

“ar reduce the negative impact of these factors, the enlightened builder-developer is relying upon astute subcontractors and manufacturers to develop systems that lower in-place cost and extend the construction season in less temperate areas of the country.” White says.

“Panelization, therefore, becomes a key vehicle to reduce in-place costs of curtain wall systems, either load bearing or non-load bearing. Panels manufactured in a plant reduce costs, since greater productivity can be achieved, as well as more efficient use of manpower and materials.

“Job site delays are reduced, since the manufacture of panels precludes delays attributable to poor weather conditions. Moreover, quality control is easier in the panel manufacturing process as opposed to field labor installations.

“With the development of thermal wall insulation and finish systems, efficient and cost effective panels can be manufactured that can provide thermal insulation values of R19 for exterior applied insulation or greater R values when

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Morsilli built a firm getting a big boost from panelization

“I cut my teeth on a hawk and trowel,” says Frank Morsilli, founder and chairman of the Dryvit Systems, Inc. of Warwick, R.I. “My father and uncles had been plasterers since the 1900s, when they emigrated here from Europe. So, when I was old enough to lift a pail of mortar onto a mortar bed, I went to the job site.”

Morsilli can tell you today that it is a long way from those early job sites to sitting behind the desk as an executive for a growing manufacturing firm.

Although Dryvit’s evolution began with a good idea in the back of Morsilli’s mind, the firm’s success cannot be attributed solely to him. As in any major corporation, Dryvit’s success has been built from teamwork, and Morsilli credits his executive team for its role in the company’s growth.

It was Morsilli, however, who assembled the team following his exits from college and naval service. He began his career in the structural clay products business.

“In the mid-1960s, the word systems became the magic word in construction. Our overall, long-range plan was to develop a systems

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Cota believes the future has arrived for panelization

Dan Cota was a journeyman plasterer at the ripe old age of 17. At 19, he was the president of Plasterers Local 21 in Des Moines, Iowa, where he served until he moved into the service.

It is almost poetic that Cota’s construction career should have begun with the plastering trade, because he is today one of a handful of manufacturers producing an exterior insulating finishing system, a market that promises to give a major shot in the arm to the plastering industry.

Cota is currently marketing a thermal wall and exterior finishing system known as solid state, and he thinks the product, coupled with panelization, will become one of the hottest systems on the market in the very near future. His newest venture falls into a long procession of manufacturing products for the industry, a process which began almost as quickly as Uncle Sam discharged Cota from his military service commitment.

That was in 1949, when Dan joined with his father to form the SD and DL Cota Plastering Company. During that time, Dan was curious about numerous items, and in 1955,
Firm support for a reducer of structural costs

combined with stud cavity insulation materials.”

White is also sold on the flexibility of panelized construction, noting “The range of colors and textures available with acrylic finish systems offers the architect an unlimited design freedom,” he says. “Special shapes can be created from expanded polystyrene insulation board allowing the architect to incorporate facade effects that would not be economical with the use of other materials.”

If White appears to be a booster of panelization, (which he is), he can said to be a fan of panelization utilizing thermal wall insulation and finish systems. Why?

“Initial cost is a key factor,” White explains. “The typical panel consisting of steel studs, exterior grade gypsum sheathing, 2-inch expanded polystyrene insulation board and exterior finishing systems, weighs about 7.5 lbs. per square foot.

“Compared to other curtain wall systems that may weigh up to 40 lbs. per square foot, the savings in footings, foundation, structural frame, as well as the cost of the panels are obvious,” White continues. “Not only is there a saving in the initial cost of HVAC equipment, but the operating costs with an R19 thermal value will also be significantly reduced for the life of the building.”

White says additional financial benefits accrue to an owner-developer of a panelized building, since a structure erected with panels generally requires less construction time. “Interest costs for construction loans are reduced (with panelization), and equally important, the building begins to produce revenue at an earlier date. Finally, rentable floor space is not reduced to achieve an R19 or greater thermal value, since double studs are not required,” White says.

White is not only sold on panelization, he believes the process may well become mandated in the future and called it “a necessity today.”

Says White: “The panelization approach to provide curtain walls with thermal wall insulation and finish systems is decidedly a necessity in today’s world of high inflation, finance and energy costs.”
He saw a finishing material bent without cracks

approach to energy-related construction problems,” he recalls.

Morsilli acknowledges he was no seer in those early days. Oil was, at the time, cheap and abundant. “My thought was if you could give the marketplace an insulated wall at the same or less cost for an uninsulated wall, you had an obviously good sell,” he says.

Surveying the market, Morsilli quickly determined that systems to meet his specifications did not exist in the U.S. market at that time. So, he went overseas for his technology.

“I went to Europe, because they had to be more innovative than we were. For one thing, they didn’t have an abundance of building materials like lumber, concrete block and steel. And, after the devastation of WWII, they began engineering their buildings rather than using empirical building codes,” Morsilli recalls.

Morsilli’s first contact with the Dryvit product came in the late 60s, in the offices of the mammoth BASF chemical plant of Germany. “I was shown what purported to be stucco bent end-to-end, and there wasn’t a hairline crack in it,” Morsilli says today. “That intrigued me.”

He arranged an appointment with Edwin Horback, the inventor of the unique ‘sandwich’ of expanded polystyrene foam. Out of the meeting came an arrangement to bring the product into the U.S. market.

“We prided ourselves on being pretty good marketers -- we had to learn to be manufacturers,” he says.

Working with his long-time associate and current VP of marketing, Frank Gencarelli, Morsilli formed Dryvit Systems, Inc., which was formally incorporated in 1969. The company began the task of fabricating insulated dry wall in a plant in Cranston.

There were problems right from the start -- almost fatal growing pains. “The sell when we were purchasing 30-cent-a-gallon fuel was very difficult,” Morsilli says. “Besides, the one thing the system does is put the insulation on the outside of the wall, not on the inside. It was a new twist on an old idea -- but it was also a tough one to sell.”

Overcoming the expected conservatism that usually greets new products in the construction market proved to be a unique challenge for the company’s sales forces. That effort was helped along, however, by the fortunate fact that Dryvit had already established a good track record in Europe, where it had already been used successfully for more than two decades.

Dryvit began to catch on for a variety of reasons. Its exterior insulating characteristics (today the firm markets Dryvit under the registered trademark of Outsulation) lowered building energy costs. It dramatically reduced the level of thermal shock to substrates, provided a waterproof skin for construction and added an unexpected bonus. The bonus turned out to be an increase in a building’s interior space, since the outsulating product reduced the need for ‘insular padding’ of interior walls.

Morsilli says convincing contractors to use the product was easier than selling Dryvit to the various local, state and federal building codes on the merits of the system. “The design profession said to us that they had been wanting to use stucco for many years; now here’s a material with a good perm rating, and the walls were virtually free of maintenance. Every time you installed a square foot of wall, you’d done about a dozen things,” Morsilli says.

On the other side was the government, however, saying “nothing doing.” Recalls Morsilli, “The Germans, with their meticulous approach, provided us with an enormous amount of test data. In my own naiveté, I thought all we’d have to do was to get it translated, then go down to such places as FHA and HUD for approval. They said we’d have to start the testing all over again. Retesting was very costly and took a lot of time.”

There was, however, some legitimacy in the U.S. government’s caution. German and U.S. testing procedures differ. There was also caution rooted in a general public association between plastics and fire danger. Morsilli says the company overcame the latter problem with what he termed “the most stringent test of them all -- the Factory Mutual ‘Corner Test’ -- which we passed with flying colors.”

In the laboratory and in actual, spectacular blazes, results proved that Dryvit does not support combustion. The material will melt, but
not add to a “Towering Inferno”. It has now met the approval of every major building code in the U.S. and seems postured to enjoy a bright market future as conservation-conscious Americans demand greater energy efficiency in their buildings.

“Our game plan is for spectacular, yet orderly growth,” Morsilli jokes. “Seriously, I see exterior wall insulation as a coming industry in the U.S. There are enormous amounts of walls out there that have to be clad with some form of insulation. Buildings are not going to be knocked down -- they are structurally sound, but they are inefficient in relation to their energy properties. I would predict retrofit will become big business.”

If the new federal laws granting substantial tax credits for insulating homes and businesses do not offer builders an incentive to use Dryvit, certainly the steady (and meteoric) rise in the cost of heating and cooling will spark increasing demand for the product. Life-of-building and short-term energy savings are another plus for the system. For example, a Dryvit retrofit on Dallastown Middle School in Pennsylvania cut fuel bills at the school by more than $14,000 in a single year. In another building, blocking the “leaky” windows of the Chlorox Company knocked more than 19,000 gallons off the company’s annual consumption of oil. In a third structure, Dryvit over concrete block cut energy consumption of Hartford, Conn.’s Talcott Mountain Radio/electronics lab by 56 percent.

Morsilli quickly points out that his product also faces a bright future in new construction: “New construction won’t go away,” he says. His product has recently been used on buildings by such firms as Digital, Polaroid, Dow Chemical and the Celanese Corporation.

To meet its growing demand, the company has expanded its production facilities from the tiny pilot plant to its Warwick factory, which opened in 1972 and is presently managed by Dennis Pacheco. The plant has a manufacturing capacity of 15,000 square feet of wall annual-

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he stepped out of the plastering firm to market his first manufactured item: a plastered on, in place brick veneer-type building front. Cota's new company was formed as Cast-O-Brick. The firm brought Cota into his first taste of association membership, though the route was somewhat indirect. Cota contracted for his first piece of advertising in a trade magazine through Chuck Clay, who was then the publisher of Plastering Industry, the magazine that later evolved into Walls and Ceilings.

When Cota's ad was later spotted by an association member, he was approached by CPLIA, which he then joined. He attended his first convention a year later in New York, and including the 63rd annual convention in Phoenix, he has not missed one since.

Since Cast-O-Brick was an exterior product with specific weather limitations, Cota then began to seek a product to sell during the colder months of winter. His answer was plastic coatings, and before long, that side of the business was prospering at a rate that ended Cast-O-Brick's existence within a year. Cota's firm had become a chemical manufacturing company. The firm operated its chemical products under the name Vice, a symbol of strength. By 1961, Cast-O-Brick became a public company traded in Iowa and involving 100 shareholders. (Today, there are 97 shareholders in the company, but Cota maintains more than 50 percent of the stock.) The name of the company, however, became the current Cota Industries, Inc. in 1961.

From plastics, Cota diversified into bagged portland cement products and portland cement veneer products called Coverseal. A bedding facilities are currently the subject of a feasibility study.

Currently armed with the purchased patents and trademarks for the Dryvit System, Morsilli's firm now enjoys unrestricted international trade. With that kind of market opportunity ahead, Morsilli is confident when he projects the possible scope of the exterior insulation market:

“What makes Dryvit unique from a marketing standpoint is that there's not a square foot of wall you have to stay away from.”

And, as his product continues to grow in its use on retrofit and on-site construction, Morsilli continues to view its opportunities in other markets.

Ask for an opinion on its future in panelization, and he'll catalogue a growing number of panelized buildings featuring Dryvit System panels. The expert opinion from Warwick is that panelization will become a major construction market, and Dryvit will be right in the thick of the competition.