Metalite Panel System, used with either Dryvit Outsulation or Dryvit Exsulation, are mechanically fastened to pre-engineered metal buildings. They typically weigh 4.5 pounds per square foot.

Most construction industry experts believe the retrofit market will become increasingly lucrative during the 1990s and continuing into the 21st century.

For that reason, Dryvit Systems, Inc. has recently embarked on a new line of panelized Exterior Insulation and Finish Systems aimed at that huge merging market.

Dryvit® is now offering the technology and components for these systems through Tech® 21 Panel Systems, Inc., a wholly owned subsidiary. The panel systems are Fedderlite® and Metalite™, each with application advantages for certain niches in the construction market.

Both are used in conjunction with company products. Fedderlite panels are used solely, with the four-component Dryvit Outsulation® System while Metalite panels can be used with either the Dryvit Outsulation or Roxsulation™ Systems. Fedderlite is a mechanically fastened system and may be attached to a wide variety of substrates. These include glass and aluminum curtain wall, concrete shear walls, brick, masonry and wood or metal studs faced with a recommended sheathing. Metalite is designed for use with pre-engineered metal buildings or to construct mechanical equipment enclosures. Both systems are compatible with special shapes and textures and colors from Dryvit’s inventory of finishes.

Getting on With Retrofit

To help plastering contractors get a strong entry into the remodeling/rehabilitation market, Dryvit is pushing its new Tech 21 Panel System.

Fedderlite Panel System, using Dryvit Outsulation, are mechanically fastened to a wide variety of approved substrates. Panels weigh only 1.5 pounds per square foot and are ideal for both retrofit and new construction.

Workmen on aerial lift and swing-stage scaffold mechanically fasten lightweight Fedderlite Panel Systems to senior citizen center in Newport, RI. Brick cladding was removed, exposing concrete sidewall.

These panel systems offer all of the traditional in-place EIFS features while adding a few of their own, thus giving them a wide range of advantages that will be of special interest to plastering contractors.

The additional benefits of Tech 21 panel systems include the elimination of through-wall joints, rapid assembly and ease of installations as well as aesthetics, insulation properties, durability and waterproofing qualities traditionally associated with EIFS.

Another characteristic that contractors will appreciate is that, like conventional panels, Fedderlite and Metalite panel systems can be erected in cold
and inclement weather, thus providing a longer construction season and eliminating the need for tenting and heating. Whereas field-applied work requires temperatures of 40 degrees and rising, Tech 21 panel systems can be hoisted and attached to buildings in any weather. That eliminates decision-making in those parts of the country where the weather changes rapidly.

Because the panel systems are prefabricated in the shop, applicators can take advantage of an ideal environment which is controlled to ensure that the systems are fabricated to exact customer specifications with a higher degree of labor and material control. Uniform lighting and the consistent location of working surfaces enable shop personnel to work in a highly effective and efficient manner independent of environmental conditions.

Both panel systems are extremely lightweight, weighing about 1.5 pounds per square foot (Fedderlite) and 4.5 pounds per square foot (Metalite), compared to conventional panels that weigh 8 to 9 pounds per square foot. Because of their light weight, they can be hoisted into place at the jobsite with 2-man crews, scissor lifts, cherry pickers or swing-stage scaffolding.

In retrofit applications, existing walls generally do not require additional structural reinforcement to accommodate Fedderlite panels. This leads to overall cost savings for the project. Both panel systems are applied in a neat, clean fashion, which minimizes construction mess of scaffolding, buckets and mixers and allows work to proceed while buildings are occupied.

Fedderlite panels are integrally reinforced with steel or aluminum extrusions that slide into grooves channeled into the EPS board. Decisions regarding the selection of steel or aluminum extrusions is a factor of wind loading conditions. Metalite panels have a G-90 galvanized steel substrate to which the Outsulation or Roxsulation System is fastened.

With its development of this new panel system, Dryvit has taken a bold step in the commercial retrofit market. The marketing of Tech 21 panel systems does not compete with conventional panelization. Each system has its own separate market identity. Whereas conventional panelization is ideal for large hotels, high-rise office buildings and major commercial developments,
the Tech 21 panel systems are ideal for specific applications in both new and retrofit construction.

Fedderlite, the lighter of the two, is not designed to transfer dead loadings or horizontal forces to the supporting structural elements. Rather the system functions as a veneer and is installed over substrates that have their own structural integrity. Metalite panels have structural capacity, but span capabilities are limited to 8 to 12 feet, depending upon wind and seismic conditions. At present it is not feasible to incorporate windows directly within the Metalite panels nor to develop the extremely deep cantilevered sills and soffits that are associated with conventional Dryvit panels.

Both Fedderlite and Metalite panels are ideal for use as exteriors for car dealer showrooms, fast food chains, shopping centers, one- and two-story office buildings, schools, light industrial factories and showrooms, doctors’ offices and other mid-size buildings.

Metalite panels, which are half as thick as conventional panels, are especially useful for cladding pre-engineered metal building framework in both retrofit and new construction applications. Because Metalite panels accommodate the wide variety of Dryvit finishes, they enable applicators to provide an individualized look to standardized buildings.

Because more than half of all buildings now under construction in the U.S. have metal siding, a new market is opening up for Metalite panels. Tech 21 General Manager James R. Jarecki adds that many cities have clamped down with zoning restrictions on the use of metal siding because of its inherently poor aesthetics. A Metalite cladding with a custom Dryvit-brand system can add distinction to those buildings and thus open up these new markets to Tech 21 fabricators.

Fedderlite is especially effective because of its adaptability. This system can be used to retrofit 1960s style, glass curtain wall buildings, glass and aluminum storefronts, and brick and masonry surfaces as well as concrete shear walls and a host of other new construction substrates.

Both the Fedderlite and Metalite panel systems are typically installed by local Tech 21 panel fabricators, although in certain circumstances it is possible for panels to be installed by the general contractors. The simplicity of Tech 21 panelization technology enables these systems to compete effectively on buildings not traditionally associated with panelization.

Dryvit Systems, Inc. and Tech 21 Panel Systems, Inc. provide technical and sales assistance to those contractors interested in becoming Tech 21 panel fabricators.

Additionally, assembly and installation training is available from Tech 21. But, with the relative ease of fabrication and installation, most training is hands-on since the basic work is already part of a skilled craftsman’s ability.
Workmen on swing-stage scaffold positioning Metalite Panel Systems on The Rittenhouse at Rittenhouse Square, Philadelphia, PA.

Men positioning Metalite Panel System.

Fedderlite Panel System—concealed fastening system with hanger clip.

While Metalite and Fedderlite have been used on high-profile buildings, such as the Esplanade in Canada and the Showboat in Atlantic City, Dryvit feels the greatest potential for Tech 21 Panel Systems will be in small to medium-sized buildings.

Stan Mason, Dryvit’s manager of prefabrication services, says owners of small plastering companies can improve their own profit potential in much the same way, by tucking a Fedderlite or Metalite panel under their arm and visiting the same architects, contractors and buildings owners, trying to interest them in another new concept in exterior cladding.

“The simple technology of both systems (Fedderlite and Metalite) makes the entire Dryvit applicator network of more than 2,000 contractors potential Tech 21 panel system contractors,” says Mason.