

# EXTERIORS



## Solid PVC and Composite Sidings A veteran installer rounds up the latest in premium polymer-based sidings

BY STEVEN LAPIETRA

Vinyl siding, like other claddings that have preceded it, has a finite life expectancy. We see this not only in terms of its performance on the wall but also in the larger scope of generational time: Siding materials come and go. As we look back, vinyl, aluminum, asbestos, beveled wood, and so on have all had their heyday. Changes from one “mainstay” to another are never clearly defined, but rather have overlapping periods. I think we are in the midst of just such a period right now.

While vinyl remains the biggest seller and cementitious siding is seen as the “high-end” alternative—at least here in the Siding State of New Jersey—a new kind of siding has been making its way into the professional siding contractor’s playbook. It’s made of a mineral composite, cellular PVC, or a combination of inorganic materials, all

of which share a key feature—they are solid materials. These new sidings are more stable and easy to handle. They cut and install much like a wood siding but have factory-applied finishes that are typically warrantied for 25 years. And they have rigidity that you just don’t find in ordinary vinyl siding.

### NUCEDAR SETS THE STANDARD

NuCedar Mills was one of the first cellular-PVC sidings to come to market in the mid-2000s. Its specialty (in my opinion) is the replication of shingles. Its shingles come the same way wood shingles do—individually sized in several widths, prefinished, with multiple exposures, and sold with the required accessories to match. The difference is in the upkeep. Because they are cellular PVC with

## SOLID PVC AND COMPOSITE SIDINGS



NuCedar shingles **(1, 2)** are so authentic looking, they can fool even the most experienced eye. Note that shingles can be butted against the casing and downboards, eliminating the need for “pocket installation” (J-channel or otherwise). The problem comes in finding color-matched trims—not only coil stock but also utility blocks, attic louver vents, and such. NuCedar also offers vertical siding **(3)**. When installing long vertical panels, you need one person up and one down, and they need to communicate constantly to keep the panels aligned. These boards can be used for ceilings, too **(4)**. Here, we cut the flange intermittently on the panels to allow for airflow and for any water from the small deck above to escape.

a “heat reflective industrial coating” finish (which is included in their 25-year warranty), they are virtually maintenance-free.

These shingles are a niche product though, given the cost of manufacturing so many individual pieces and the incredible variegated finish that each one has. But for clients who are looking for more than what a vinyl shake product can provide, without the upkeep required for finished cedar shingles, there is no better alternative.

Much the same can be said of the vertical sidings from NuCedar. The long, authentic cedar grain is unmatched in the industry and perfectly complements a vertical application. Vertical applications can be tricky, though. The problem is, well, gravity. You need one installer up and one down, and they have to be on the same page and

communicate constantly. This is so important, because if they don't communicate well, panels start to go wavy and it's going to show.

I believe the only reasons the NuCedar products haven't been more prevalent in the field are the cost of materials and the time required for a proper installation. Not many homeowners are willing to pay for this premium material. Nor are there many siding contractors willing to put in the time to learn how to properly install it. The photo on the previous page gives you an idea of part of what's involved: Shingles must be sorted by size, dabs of Flex-and-Fill applied to the bottom corners of each shingle, and stainless nails shot to apply. The photos above provide a little bit more detail.

Two things we run up against with all new solid sidings: First, it is imperative to find aluminum trim coil that will match, or





For a brief time, Marvin (5) made siding from pultruded fiberglass—the same material as in its Integrity windows. Azek (6) made a similar type of siding. Both companies offered 7-inch-exposure clapboards, for which there is high demand. This was a superior siding material most notably because boards could be butted to trim and no caulk was necessary when they were properly flashed. The look was perfection. Unfortunately, both products have been discontinued.

nearly match, the finish sidings. Manufacturers that provide color-matched coil stock are one step ahead. NuCedar is not one of these, so we have to work at the beginning of the job to find the best match and set client expectations accordingly.

Second, we always focus on water management. Under the siding and foam underlayment, we use aluminum trim coil at all inside and outside corners over the housewrap. We like to use a drainable housewrap with stand-offs or folds to help move the water out and away. This is especially important in our market along the Jersey Shore. (Remember Hurricane Sandy? We remind ourselves of this all the time.)

### A FLEETING MOMENT WITH FIBERGLASS

For a time, NuCedar was the main player in this new field of siding materials. Then, in 2012, Marvin developed a siding made of the same material as in its Integrity windows—pultruded fiberglass. It was—and still is—the finest siding I’ve used. It was aptly called “Apex.” We used it for several jobs, as I recognized it as the ultimate answer to all things “suspect” in the vinyl, fiber cement, composite, and engineered-wood categories. But, alas, it didn’t take off, and when the product went off the market, we were disappointed, as we had just been gaining momentum,

with several jobs under our belt by then.

Azek followed Marvin with its own version of siding in 2016 that, I suspect, had some element of fiberglass in it, too. We did a job with it, hoping to continue our foray into this New World of sidings. But Azek pulled the plug on this one, too. (Azek has recently returned to the cladding market with a repurposed decking board formulated for open-joint and plank siding, but we have yet to use it.) I still think fiberglass is in our future. Just the fact that expansion and contraction are negligible makes the material a no-brainer. And best of all, no caulk is necessary when it’s properly flashed, and no pocket or J-channel needed: The look is perfection.

### ROYAL BUILDING PRODUCTS’ CELECT

Sometime in 2014, I became fully aware of a new siding made by Royal Building Products. I say “fully” aware, because in 2011, a representative from Royal had visited me on one of my jobs to see what I thought of a new prototype siding. It was solid, and it had a shiplap interlock at the end of each panel. This would make it virtually seamless, which has always been a draw for me and my customers. (I believe I was contacted because of my membership in the “Seamless Siding Association,” an organization in the 1990s and early 2000s that included siding contractors



With Royal Building Products Celect siding (7), seams (butt joints) are shiplapped so each course moves in unison across the length of the wall. Note the double nails in the upper right corner. This is the center of the wall; the double nails “pin” the siding in the middle, so thermal movement happens evenly from the middle out in both directions. Because of the thermal movement, penetrations such as this vent outlet (8) require a deep-set pocket, which requires a wide trim. From the start, Royal has offered color-matched, heavy-gauge aluminum trim coil for detailed finish work. Here (9), the AC lines are capped with matching coil stock fabricated on site—much better than the usual white leader pipe. Instead of the usual mounting blocks, a plate made from coil stock overlays a narrow block, allowing the siding to move underneath.

from the New England and mid-Atlantic states who had exclusive areas to sell and install Royal’s Suprema 40-foot-long vinyl siding.) I imagine it took some time to move the prototype into production, because it wasn’t until 2014 that the material became readily available in my area. Once it was a viable alternative, we knew this was a special siding.

The product is well-thought-out, and the line includes all the required accessories. We did our first job with it in early 2015. From the start, Royal has offered color-matched, heavy-gauge coil stock, as well as a line of color-matched cellular-PVC trim stock, which has been very convenient.

We have continued to sell and install Royal Celect to those homeowners who seek the “best.” Installation is slower than with regular vinyl sidings, as all cuts have to be made with power tools. No snips here. And no J-channels to hide the ends. Everything fits in a high-profile trim element or custom-fabricated (out of the matching color aluminum trim coil) receiver piece. At first, all penetrations

had to have a “receiver pocket,” which we built following the manufacturer instructions by applying one 1-by-1½-inch furring strip, and then overlaying a 1-by-3½-inch trim piece. This created the 2-inch pocket that Royal calls for. Having spent many years in the seamless-siding world, I became very familiar with the required allowances for expansion and contraction. I also know that those allowances are relative to the size of the panel, or in Celect’s case, joined-together panels. So, we are comfortable with having smaller pieces of siding end in ¾-inch pockets. Many times this will eliminate an otherwise obtrusive trim.

A couple of years ago, Celect introduced a shake profile. It is a single 7-inch panel, and it comes in two different molds, which eliminates the problem of a repeating pattern that we have found with other panelized shake sidings. And the window trim materials are varied enough to make several types of casing systems. These shakes are hard-nailed (the panel has no nail holes), so we can employ a siding nail gun, helping speed up the process.





The Royal Celect line includes a shake profile in a 7-inch panel that comes in two different molds, which eliminates the repeating-pattern issue found with other shake sidings. These panels are hard-nailed (10) (the panel has no nail holes), so installers can use a siding nail gun. The window trim materials offered by Royal Building Products are varied enough to make several types of casing systems, including a Victorian look (11). The author's crew makes up the casing units using 2P10 adhesive and Kreg hidden screws, and installs the assemblies after the siding is done (12).

### CHELSEA BUILDING PRODUCTS' EVERLAST

Chelsea Building Products (founded in 1975) has been a behind-the-scenes maker of specialty products in the siding market for some time now. Many major manufacturers marketed Chelsea products branded with their name for a number of years. In 2009, Chelsea introduced its own Everlast siding product in New England, and it has proven to be a viable option in this emerging sector of the siding industry.

Everlast is made of a polymer base with inorganic minerals. We especially like its authentic finish, and we also like that it has far

less expansion and contraction than most other sidings in this new genre. It calls for only a 3/4-inch pocket for penetrations, so we can use standard utility blocks, such as those by Mid-America, and typical and readily available cellular-PVC trims, such as those from Azek.

Like Celect, Everlast also has a butt-joint seam; it's mechanically fastened by using a stainless steel bar that spans the panels in the upper, hidden nailing area. This bar must be double-screwed to each adjoining panel (four screws total), insuring that the seam will stay closed. The screws are short enough to allow the siding to move freely, without attachment to the wall. This becomes a bit laborious, but

## SOLID PVC AND COMPOSITE SIDINGS



Chelsea Building Products' Everlast line uses a stainless-steel bar for joining panels, and the panels have nail slots every 8 inches to help installers hit the stud layout (13). Everlast, combined with cellular-PVC fascia, corner boards, and brickmold casings, creates an authentic, zero-maintenance exterior. (14). Even with the sun directly overhead, shadow lines appear straight and even (15); this doesn't happen with ordinary vinyl. Using narrow, 4 1/2-inch panels means more panels to handle, more seams to join, and more nails to apply, making for a more expensive job (16). But the look closely matches old-style clapboards.

after a while, installers get used to it. Here in New Jersey, we often work on older homes that have fiberboard sheathing, which requires us to fasten the new siding to studs. The spacing of Everlast's nail slots every 8 inches makes this easy to do.

The siding is offered in two profiles, 6 7/8 and 4 1/2 inches, as well as in a relatively new board-and-batten panel with an 11-inch reveal. I believe Everlast has captured the look of wood with its finish. Because it is thick and not just a sheet material, the depth and character of the wood grain is much clearer than what we've seen in ordinary vinyl products. Everlast does not have as many ancillary products as we would like. It doesn't offer color-matched cellular-PVC trim, utility blocks, or aluminum trim coil, although Chelsea does have an array of its own cellular-PVC trim materials in white, and we

have had luck in matching its colors to those of other vinyl manufacturers that offer a wide selection of coil stock. Chelsea does have some basics: corners, J-channels, and a 3 1/2-inch casing in colors.

### WOLF HOME PRODUCTS

Wolf is another brand of composite sidings we have used recently. Wolf Home Products is the marketer and distributor; Intoplast Group is the parent company. Regardless, the siding is fully backed and supported by Wolf, and is a well-made, solid panel. Best of all for us, it is offered in a 7-inch panel, which is in high demand today. It is also available in a double 4-inch panel, but we're not so sure there will be a call for double anything anymore, as it looks too much like ordinary vinyl.





Wolf's Baltic Blue comes with matching coil stock for fabricating the many different details that come up on nearly every job, including a receiver channel at the chimney, a false bottom course, and a capping for an extended foundation (17). The Wolf system requires plates to join panel ends. These require you to apply pressure to help the adhesive cure (18). The result is an incredibly strong joint. This facade (19), on which the custom-fabricated gutter leader at right nearly disappears, makes a strong case for matched coil stock.

Wolf calls for a 1½-inch pocket and provides a specific line of cellular-PVC trims in white only. We're hoping it will start making trims in colors to match. Not everyone wants white, especially for corner posts. With Wolf products, we have to hunt for color-matched aluminum coil material.

Seams with Wolf are handled with a splice plate. As with Royal Celest and Chelsea Everlast, which also offer a secure butt finish, this results in stable butt joint. The Wolf system, however, is a little more involved, requiring you to place glue on the plates and apply some pressure to cure. This is only a small nuisance that quickly becomes standard procedure.

While more expensive, the new composites are making inroads into more and more siding markets because they can all be accented

with high-profile trims. This really sets them apart from standard vinyl sidings. No aluminum casings with unsightly J-channels clutter up the look. Solid 4x8-foot PVC sheathing panels can be used for window panels as well as the "board" area of a board-and-batten accent. Flexibility, as well as creativity, is unrestricted by the set sizes of vinyl materials. A specific width and a specific batten size are easily made with solid cellular-PVC material. All you have to remember is to seal any cut edges with acetone, to prevent them from darkening over time. And many types of moldings, even crown molding, are available. Most are available from each of the manufacturers covered here.

*Steven LaPietra owns and operates Monmouth Vinyl and Fiberglass, based in Howell Township, N.J.*