

V I N Y L

A storefront outfitted with the latest synthetics: acrylic brick from Nailite, PVC wainscoting from Wolverine Technologies, and Wolverine's fish-scale siding on the gable end.



With improved plastic and more product choices, vinyl's popularity is on the rise.

S I D I N G



R E V I S I T E D

Siding options were once limited to wood and masonry. Today, we can also choose from vinyl, aluminum, steel, and polyacrylic materials. While the figures vary depending on whom you speak to, it's common industry knowledge that vinyl siding has made the largest market gains during the last 10 years—particularly in the residing market. In fact, vinyl accounted for over half of all 1986 re-siding jobs, according to a survey conducted by *RSI* magazine.

Trailing behind is aluminum (PVC-coated is the best) at 25 percent. Once the staple of the re-siding field, recent years have seen the narrowing of aluminum's use to darker colors, such as red and brown, and to 8-inch exposure, where vinyl did not perform as well. Aluminum is also used for board-and-batten styles and for multitone fluorocarbon finishes, such as Alcan's Cedarwood.

Far behind are steel siding, asbestos, and masonry finishes. Also, minuscule as their market share may be, the use of polyvinyl simulated shakes, brick, and stone is on the rise. These are primarily used as accents to standard sidings. Their durability has proved superior to that of the old fiberglass shakes, and they carry warranties of up to 60 years.

A Rough Start

While Vinyl Improvement Products Co. (VIPCO) lays claim to developing the first vinyl siding in 1957, several other versions appeared at about the same time. The birth of vinyl siding came with little fanfare as diehard aluminum siders took a wait-and-see attitude. Apparently it was a good thing they did, since the original vinyls became brittle in the cold, and cracked.

Other problems were excessive fading, and bubbling of the vinyl—called "oil-canning."

Vinyl and aluminum installation techniques were—and still are—quite different. Since vinyl expands and contracts more than aluminum, tight nailing will invariably create buckling. Too loose, and it will be in the neighbors' yard after the next storm. Consequently, aluminum applicators tended to over-nail the vinyl, or fit pieces too tightly against trim. The resultant buckling left vinyl's reputation somewhat tarnished, and sent many contractors scurrying back to whatever material worked for them previously.

The mid-'70s were vinyl's adolescence. Progressive contractors heeded manufacturers' advice on installation procedures, and developed a few tricks of their own. In addition, manufacturers improved vinyl formulations and overcame most of its previous drawbacks.

Among the many new ingredients, the injection of titanium dioxide was the most advertised. While more expensive than calcium carbonate, which is more commonly used, its purported effects include reduced ultraviolet degradation (fading), improved strength, and reduced expansion and contraction. (To determine how much of this agent is used, one manufacturer suggests holding a white vinyl panel to a light and noting its translucency. The more light, the less titanium.)

As for gauge, vinyl sidings ranging from .030 to .039 inch fit the bill for new construction, and .040 to .045 is used for re-siding. The heavier materials are necessary to cover up irregularities in the surface when you are re-siding. Thicker panels appear on the market

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from time to time, but their basic formulation may not include the higher-quality agents. It's better to have less of the right stuff than more of the wrong.

Keep It Clean

Vinyl is the most durable of the residing products, but it takes a little work to keep it looking new. A once-a-year wash down will prevent dirt buildup, particularly under the eaves. Those substances that require solvents or abrasive cleaners (we use Comet) can be attacked with confidence, since vinyl siding is 100 percent color throughout.

We tell our customers that when we finish the job, their exterior maintenance will be reduced by 95 percent. The remaining 5 percent squirts from the end of a garden hose. We further explain that since we'll still be sending prospects by their home 10 years from now, we expect them to keep the siding looking like new. If they can't commit



**While
manufacturers
scream for loose
nailing, we have
found that 'snug' is
the most effective.**



themselves, we offer our wash-down service: We will stop by, use their hose and water for two or three hours, and bill them \$300 to \$500. Most of our early jobs from 10 to 13 years ago still look great because the home owners either washed the siding themselves or found a kid down the street willing to do it for about 10 percent of our fee. Incidentally, I've yet to have someone agree to my terms (thank goodness) so you needn't worry you'll wind up in the house-washing business.

Installation

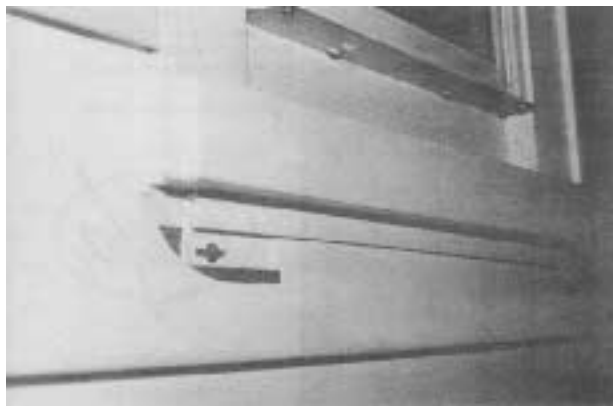
Before installation, always examine the existing siding. Check for rotted wood, bowed substrate, and the like, which can point to a possible moisture problem. Rotted sills are usually caused by water trapped behind the storm window. Excessive paint peeling under an overhang probably means poor attic ventilation. In this case, we'll add additional venting by drilling holes in the existing soffit before installing a vented aluminum soffit.

It's a good idea to always have on hand a small supply of 1x2s, 1x3s, 2x4s, lath, and plywood to make any minor repairs. This will help you resist the temptation to simply cover up a damaged piece of siding or exterior trim. It's worth the effort if you want to send prospects by the job 10 years from now.

The most abused installation step has long been nailing. While manufacturers scream for loose nailing, we have found "snug" is the most effective. As long as it is not too tight, the vinyl will be able to contract and expand properly.

As far as the general warning to leave 1/4 inch of clearance between siding and end trims, a better approach is to consider the size of the panel being installed. A 120-inch panel should indeed have 1/4 inch of play on each end, but a 20-inch piece doesn't need as much space. Also, remember that when you install vinyl in very hot weather, the

panel has already expanded to its fullest size. The panel can therefore be fitted more tightly, since it will contract when the weather gets colder. The opposite is true in cold weather.



Under-sill trim molding—not J-channel—should go under sills, fascias, and other terminations to keep the cut panel from buckling.

Another common problem is the appearance of vertical seams. Customers often complain if the panels are installed symmetrically, creating a conspicuous "stairway" effect. Placing the seams randomly will produce a more natural and less noticeable appearance.

Because of its flexibility, vinyl siding is relatively easy to work with. This is especially true when working in tight conditions, such as in repair jobs. If junior uses the new vinyl siding as a dart board, individual panels can easily be removed and replaced by using a "zip tool." As its name implies, this tool stretches the bottom lock down and away from the interlocking panel, unzipping it from one end to the other. Replacement panels are then installed and zipped back together.

Bring Back the Undersill Trim

Using under-sill trim is a dying art. Too many installers feel they can use 3/4-inch window J-channels at every detail. A half dozen small (1/2 inch) J-channels and under-sill trim pieces may cost \$25, but they can go a long way toward achieving a more detailed retrofit. For example, where a vinyl panel ends below the fascia board and needs to be cut down to 3 inches, it should fit into an under-sill trim—not rest against the back of a J-channel.

The under-sill trim will ensure that the vinyl expands and contracts in a straight line, whereas J-channels will let the unrestricted vinyl "bubble." The only variation occurs when a siding panel must be ripped to a narrow strip of less than about 1-1/4 inches in height from the butt. In this case, 1/2-inch J-channel looks and performs like under-sill trim.

Of course, the most logical place to use under-sill trim is—under the windows!! Yet too many five-year-old jobs have vinyl that is rippled, concave, or convex at this point because it was laid loose up under the post-applied aluminum sill covering. This is especially true on the sun-swept walls. An added benefit is that under-sill trim or 1/2-inch J-channel will block air leakage at the interior sill area—one of a home's most noticeable infiltration points. In any event, the improved appearance bespeaks a professional installation.

Insulation

Before any siding is installed, insulation must be considered. If the walls are already insulated in a re-siding job, we

usually recommend a permeable product, such as Monsanto's Fome-Cor. This is a 1/4-inch extruded-polystyrene product that has foil on one face and reinforced paper on the other. It provides both insulation and a level backing for the siding. Because it is

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perforated, the panel's permeance is rated at about 6. Taking into account the foil and added air spaces, such a product can raise the R-value of a 2x4 insulated wall to R-19, according to Monsanto literature.

Infiltration at window and door frames and other cracks is more important than a few R-values, so we consider a proper installation of the underlayment, siding, and trim more important than the type of insulation. In fact, we consider the perm rating more important than R-value. Water vapor should be allowed to escape and vent out through the weep holes found on the bottom of every vinyl siding panel.

While we're on weep holes: If you've been using the foam backer board that fits behind each panel of siding, you've been blocking the weep holes and defeating their purpose. Hollow-backed siding provides a more secure approach to moisture problems.

Vinyl Arrives

Vinyl siding has reached maturity in the '80s. With new styles and accessories and new, darker colors, the contractor can offer a full range of options. Product quality varies little now among top manufacturers; all offer warranties that cover excessive fading as well as the standard chipping, flaking, and peeling. (Of course, the accessibility of the



Beaded vinyl siding and polyvinyl shakes, both from VIPCO, are used in combination on a garrison-style house (left). Mastic's new dimensional-series panels with vertical striations (right) look like shakes when viewed from a distance.



manufacturer's rep is just as important as the wording of the warranty.)

Among the new profiles is the ship-lap. Nearly all manufacturers have developed this extrusion in 4- and 5 inch exposures. The high-shadow design adds visual depth to vinyl siding.

VIPCO's Charlestown series reproduces the effect of the trim molding used beneath each clapboard butt on some turn-of-the-century homes. The double shadow line and low-luster finish add traditional detail. The panel's 6-inch exposure is designed to match the scale of larger homes.

Where vinyl siding was once a 4-inch-or-nothing situation, today's designs come in 2-1/2 to 8-inch exposures. Only the 8-inch panel is susceptible to oil-canning. Mastic's dimensional series uses a heavy vertical striation (giving it the texture of shakes) to add strength,

and seems to be the 8-inch panel that is most likely to retain its shape.

But the demand for narrower sidings gets stronger each day. Some two-story colonials gain character when a narrow siding is combined with a wider exposure of the same brand and color. Ranch houses can also benefit from more detailing. Also, finishes are now varied; Variform's Cedar Select and Alside's Endura Supreme offer the deepest wood-grain finishes.

The pioneer in both the smaller and smoother vinyls is Wolverine Technologies. Their Restoration series comes with the standard solid-vinyl nailing hem or the innovative Flotrac system. This system has an aluminum nailing hem that allows the vinyl to "hang" and move freely. The Flotrac is good at hiding wall irregularities and eliminating the effects of over-nailing. The only

field problem is that the ends of the hems are factory crimped to prevent the vinyl from sliding out. As panels are cut, the applicator must remember to re-crimp them before installing cut pieces.

These items are complemented by an array of accessories, including PVC lattice, window surrounds, beaded panels that simulate wainscoting, highly designed corner posts, and even fish-scale vinyl siding.

Progress in vinyl technology is perhaps most apparent with the introduction of darker colors, which were always a problem because they absorbed too much heat. CertainTeed's Futura 2000 series leans to the look of stained wood with a smooth finish. Mastic's version gives the appearance of deeper, painted colors. Both companies offer red and brown as well as darker grays

and earth tones.

Mastic has the largest line of accessories, one of which—their shake—is actually a siding. It is a double-five panel that is most effective on the second story and higher, since the illusion of shakes it creates from a distance is lost close up.

With more and more products to choose from, today's contractor is challenged to keep up with the trends. While the latest round of advancements leaves us with a "what will they think of next" attitude, we are sure it will be something exciting. ■

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