

ON SITE WITH PRIME TRIM



CAROLYN BATES

PrimeTrim installs like wood, but its defect-free surface will hold paint up to twice as long.

BY CHARLES WARDELL

I'm a fan of engineered lumber, so when I heard about PrimeTrim exterior trim, I decided to find out how good a substitute it is for solid wood. After trying it out on the porch trim of my new house, I interviewed several builders from around the country who have also made the switch to composite trim.

What I discovered was that, like all engineered products, PrimeTrim has its pros and cons. It also handles differently from solid wood, and requires that you adjust your installation

techniques. The builders I talked with all called PrimeTrim a real time- and money-saver, but their opinions differed on whether it was an appropriate substitute for wood trim.

Exterior MDF

PrimeTrim is a hardboard-like product made by Georgia-Pacific (133 Peachtree St. NE, Atlanta, GA 30303; 800/284-5347). It comes in the form of trim boards, with a factory-applied prime coat on one face and two edges. Gib Landis, the sales manager in charge of the product, describes PrimeTrim as an exterior-grade medium-density fiberboard with special additives to enhance weather resistance. It contains no isocyanurate or urea-formaldehyde resins; instead, it uses a noncarcinogenic phenolic resin — the same adhesive used in exterior-grade plywood.

PrimeTrim costs roughly the same as No. 2 pine, and about half the price of clear pine. It comes in the same widths as nominal lumber, and with either a smooth or wood-grain-embossed face (see Figure 1, next). Thicknesses differ, however, from solid wood. Nominal 5/4 PrimeTrim is 1 inch thick, while nominal 4/4 is only 5/8 inch thick. Steve Loken, who runs the Center for Resourceful Building Technology in Missoula, Mont., and has

Success with this preprimed composite trim depends on care with fasteners and special detailing for seasonal movement



Figure 1. PrimeTrim is available in smooth and wood-grain-embossed finishes.

used PrimeTrim for several years, found this out the hard way. He ordered 4/4 PrimeTrim to use as corner boards on a house he was building, but had to fur out the 5/8-inch-thick material to make it stand proud of the siding.

Availability can also be an issue. Builder Malcolm Willard, of Williston, Vt., complained that when he ran short of 1x12s, it took more than two weeks for his supplier to get more. Because inventories vary with the supplier, he suggests planning the job carefully and ordering early to avoid shortages.

I found PrimeTrim to be uniform in composition and free of defects. Like the other builders I talked with, I liked not having to cull pieces to avoid knots and crowns. The product comes only in 16-foot lengths, however — a mixed blessing when it comes to waste. The longer lengths reduce the number of field splices on long runs, but shorter runs of 10 or 12 feet leave a lot of short pieces, which must then be either spliced together or discarded as waste. PrimeTrim is also very bendable. Long lengths need to be supported at shorter intervals while being cut or stored (Figure 2).

Detailing for Movement

According to Georgia-Pacific's Gib Landis, PrimeTrim is shipped at 7% moisture content. Because it absorbs and sheds moisture very slowly, he says, most problems show up under extreme conditions. "If you run a water sprinkler against it continually for five or six years, as some people in the South have done, it will start to rot, he notes."

But builders' opinions concerning dimensional stability vary. Steve King,

owner of Common Vision in Hamden, Conn., has been using PrimeTrim for about four years and has had no problems with shrinking or swelling. Steve Loken, on the other hand, has seen movement along the length, where the product swells and shrinks twice as much as wood. Shrinkage caused some of Loken's outside miters to open up. Landis spoke with a builder from Albuquerque, N.M., who installed the material on 48-foot runs according to manufacturer's directions. The boards shrank lengthwise, and the builder had to come back and fill the joints.

Similar problems occur when PrimeTrim gets used for interior trim. In most parts of the country, material installed during the summer months tends to shrink during the first heating season. In consistently humid areas like the Southeast, however, swelling can be a problem.

According to Byron Papa, a builder who has used PrimeTrim in Alabama,

the best defenses against swelling are built-in expansion joints and a good paint job. Papa follows the manufacturer's instructions to leave 1/8 inch between butt joints, and fill the gap with a high-quality sealant. (Silicone or polyurethane are both acceptable.) Another solution is to use overlapping miters, as is common with solid lumber. But if you nail through the miter, you should predrill nail holes to keep the nails from cracking the material.

Cutting and Fastening

PrimeTrim is easy to rout and saw, but because it's so hard, it dulls blades and bits a lot faster than softwood (Figure 3). Steve Loken reports that even the carbide-tipped blades recommended by the manufacturer last only one-third as long. Malcolm Willard complains that miters don't cut as cleanly in PrimeTrim as with select pine, and that the feather edge needs more touch-up.

Dust may be a bigger concern than blade-dulling. Because PrimeTrim is made of wood fibers rather than chips or flakes, it generates very fine, respirable dust when cut. If you're working inside, the dust gets into everything. I recommend cutting outside and wearing a good dust mask.

Fastening. PrimeTrim has no grain, so you can nail within 1/2 inch of the ends and edges without drilling a pilot hole. Splits are common when nailing into the edge or end of a board, but drilling a small pilot hole solves the problem.

Setting nails and filling nail holes is more tedious than with solid lumber. Not only does the material's hardness



CAROLYN BATES

Figure 2. PrimeTrim bends a lot more than wood. This makes it great for trimming curved walls, but it also means that the material needs more support during cutting and storage.



Figure 3. Although it can be cut with ordinary tools, PrimeTrim is very hard and dulls even carbide-tipped blades much more quickly than solid wood.

make nails hard to countersink with a single blow, but finish nails tend to leave a pucker on the surface that must be sanded and primed before it's filled (Figure 4). Headed nails present a similar problem. When driven perpendicular to the PrimeTrim surface, headed nails can be set 1/8 inch below the surface, leaving a clean hole, but if they're driven at a slight angle, the heads tend to chip the edge of the hole when set. This exposed area must then be sanded and filled.

Instead of setting nails, the manufacturer recommends driving them flush with the surface and painting them. But Loken, for one, doesn't like the finish appearance: "It looks like the house was riveted together," he says. Instead, Loken uses textured PrimeTrim boards wherever possible. While this helps to hide nails and defects, he's concerned that the textured products tend to look fake.

Air-driven nails can blow out the surface if not driven exactly straight, something King considers a minor annoyance. Willard reports another problem when using power nails collated with plastic: Even if the nail goes in straight, bits of plastic remain on the nail as it is driven and can chip away the PrimeTrim surface. Landis reports that the driver blades on some air nailers can tear the surface of PrimeTrim, although a nonmarring tip will help.

When using screws, be aware that PrimeTrim has less holding power than solid wood. Willard discovered this when the short wood screws used to hang a screen door on a PrimeTrim casing pulled out from everyday use. I also found that the edges of corner boards chipped easily when struck.

Painting Tips

One of PrimeTrim's big selling points is that it paints nicely. Landis claims that paint will last twice as long on PrimeTrim as on solid wood, because there's no grain to shrink and expand, or to raise and stress the surface. He knows of houses on which PrimeTrim painted nine years ago still shows no signs of peeling or chipping.

Of course, the coating's success depends in part on what's behind the trim. Will Biddle, who studies alternative building materials for the National Association of Home Builders' Research Center, has seen problems with factory-primed hardboard-type trim when applied over foam sheathing. Moisture trapped between the trim and the foam has no place to go, and is wicked through the trim, loosening the paint. Biddle says the safest course is to use plywood or fiberboard sheathing, and to apply the trim over a layer of rosin paper.

I also found that cut edges absorb the first coat of acrylic primer like a sponge.



Figure 4. When a finish nail is set in PrimeTrim, it leaves a pucker that must be sanded and primed to leave a smooth finished surface.

One solution is to put two coats of unthinned acrylic primer on the edges. Another is to use an oil-base primer (King does this and hasn't had problems with absorption).

The manufacturer recommends that you finish-paint within 60 days, before the primer coat can erode or get dirty. If you have to wait longer than 60 days, says Landis, reprime the trim before finish-painting. Byron Papa takes no chances: He finishes PrimeTrim with two heavy coats of a good acrylic top coat.

Ready for Prime Time

How good a substitute for solid wood is PrimeTrim? King is sold on the product: "It's a tremendous material." In his view, the little extra work required to make PrimeTrim look good is more than offset by the fact that it doesn't warp, cup, split, or check, and that paint lasts longer.

Willard is more circumspect. "I would probably use it again on a less expensive home, where cost is a bigger concern than quality," he says. "But not for high-visibility projects." Even on budget jobs, Willard would be careful to adjust his customers' expectations: "It's a good substitute for No. 2 pine, but not for select pine."

In my case, I finished my porch about a year ago, and it looks as good as the day I installed it. There's been no checking or splitting, and the PrimeTrim joints have remained tight. My pine corner boards, on the other hand, have developed gaps at the seams between boards due to cupping.

However you use the material, you'll have an easier time if you adjust some of your work methods:

- Keep an extra carbide-tipped saw blade on hand.
- Drive and set nails as straight as possible — and be prepared to do some sanding and filling.
- Use mitered joints at end splices, or else leave the butt joint somewhat loose and fill the gap with a high-quality, paintable sealant.
- Avoid ripped edges to reduce the need for priming during installation.
- Plan ahead how you'll detail intersections with solid wood.
- Finally, coat the trim with a high-quality acrylic paint. ■

Charles Wardell is an associate editor with the Journal of Light Construction.