Engineered Trim & Siding

Engineered wood, fiber cement, and plastic can provide the look of natural wood siding and trim without the limitations of the real thing

by Jon Vara

There are still a few carpenters out there who are old enough to remember when it was possible to walk into any lumberyard and buy high-quality wood trim and siding at a reasonable price — but the memory is gradually sliding into the realm of myth. Quality and price aside, wood has other shortcomings: Knots and other defects increase waste and breed callbacks when resin bleeds through paint. The supply can be inconsistent, and prices fluctuate wildly — or remain high for the best material. Wood trim and siding require regular maintenance if they're to stay looking good — something many time-strapped, paint-averse modern homeowners simply don't want to deal with.

As a result, more and more builders are turning to a variety of manufactured siding and trim materials, including engineered wood, fiber cement, and several varieties of plastic. Some of these new products cost less than wood, while others cost substantially more. But correctly used, all have the potential to increase customer satisfaction, reduce callbacks, and boost the builder's bottom line.

Engineered Wood

The engineered wood category includes hardboard, OSB, and LVL siding and trim. The first two are lower-cost alternatives to wood, while LVL is a premium product that competes directly with high-quality solid wood.

Like natural wood, engineered wood is fastened with nails, although the details vary somewhat. Some products, for example, require headed nails left flush with the surface, while others permit countersinking and caulking of nail heads.

In the wake of widely publicized exterior hardboard failures in the early 1990s, manufacturers appear confident that more reliable adhesives, finishes, and — in some cases — chemical treatment will prevent problems with swelling and rot from recurring.

Still, it's interesting to note that some manufacturers seem to go out of their way to avoid describing their own products as hardboard — although they may not hesitate to apply the H-word to their competitors. Georgia-Pacific, for example, describes its PrimeTrim trim material as a "high-resin, high-temperature cured, all-wood fiber composite." The Masonite Corporation publishes a comparison chart that describes its own MiraTEC trim as a "treated exterior composite," while labeling its competitors' products — including GP's PrimeTrim — as "hardboard."

MiraTEC

Although the Masonite Corporation stopped making hardboard siding in 2001, it still manufactures MiraTEC wood-fiber composite trim in both 4/4 and 5/4 thicknesses. Available widths range from a nominal 2 inches to 12 inches. MiraTEC is reversible, with one smooth and one textured face, and is factory primed on all four sides. To prevent decay and termite damage, both the siding and the trim are factory treated with the company's Borogard ZB preservative. The manufacturer offers a limited 25-year warranty on the engineered substrate and a 5-year warranty on the primed finish.

MASONITE CORPORATION

Masonite's MiraTEC trim features one-piece construction for uniform density and is borate treated to resist insects and decay.

TrimCraft

Temple bills its TrimCraft engineered-wood trim as a complete cornice system. In addition to the familiar 4/4 and 5/4 hardboard-like trim boards, the company offers 16-foot soffit panels in widths from 6 to 24 inches, and 4x8 ceiling panels. Both the engineered boards and the 7/16-inch panels are reversible, with one smooth and one textured face. Fascia boards are available with a pre-plowed groove sized to accept the soffit or porch-ceiling material, simplifying assembly. Temple provides a 10-year warranty on the engineered trim itself and a 5-year warranty on the factory-applied primer.

Temple offers a half-dozen varieties of both lap and panel hardboard siding as well, including imitation stucco and ornamental shingle panels. The company's siding carries a 25-year warranty, with a 5-year finish warranty.

TRIMCRAFT

Temple promotes its TrimCraft Cornice System as suitable for all trim applications, from shingle molding, fascia, and band board to soffits, ceiling panels, and columns.

Engineered Wood

ChoiceTrim

Weyerhaeuser's ChoiceTrim — actually manufactured by Collins Products and distributed by Weyerhaeuser — is described by the company as a "uniform hardboard-based" product. It's reversible, primed on all four sides, and comes in nominal widths from 4 to 12 inches in both 4/4 and 5/4 thicknesses. Like TrimCraft trim, ChoiceTrim fascia is manufactured with a plowed back to simplify soffit assembly. ChoiceTrim carries a 10-year warranty, with a 5-year warranty on the prime finish.

Collins Products also manufactures a full line of 7/16- and 1/2-inch hardboard siding, which are marketed as TruWood siding. Both lap siding and panel siding are available. TruWood siding is warranted for 30 years and carries a 5-year finish warranty.

COLLINS PRODUCTS

Weyerhaeuser's ChoiceTrim (actually manufactured by Collins Products) is reversible, for a smooth or cedar-textured look. Here it's paired with Collins TruWood Adobe panel siding for a stucco-like appearance.

GEORGIA-PACIFIC

Georgia-Pacific's PrimeTrim has a nine-year track record in all 50 states. The company's Catawba siding is available in both smooth and embossed versions in a variety of styles.

PrimeTrim

Georgia-Pacific's PrimeTrim is a hardboard-like composite of wood fiber and resin that's available in nominal 4/4 and 5/4 thicknesses in lumber widths from 4 to 12 inches. The material comes with a baked-on primer on one face and two edges. Both the trim itself and the factory-applied primer carry a 10-year warranty.

GP also offers its Catawba hardboard siding in a wide variety of styles. Many are available in a 1/2-inch StayStrate configuration, which is said to resist "waviness" better than 7/16-inch hardboard siding. Catawba siding carries a 30-year warranty, with an 8-year warranty on the factory primer. StayStrate siding has an additional 20-year warranty against buckling not associated with the underlying framing or sheathing.

GEORGIA-PACIFIC

Engineered Wood

SmartStart

Unlike the preceding trim products, Louisiana-Pacific's entry in the exterior trim field is not a hardboard. The company's SmartStart trim consists of a substrate of OSB covered with a resin-impregnated paper overlay. Like competing hardboard products, it's available in 16-foot lengths and standard widths from 4 to 12 inches. LP's recently introduced SmartSystem siding makes use of the same construction in both lap and panel siding. All SmartSystem trim and siding products are manufactured with LP's borate-based SmartGuard process for enhanced resistance to termites and rot.

Finally, the company markets a line of traditional hardboard siding, which is sold as ABTco ColorSide siding. ColorSide siding carries a 30-year substrate warranty and a 15-year finish warranty.

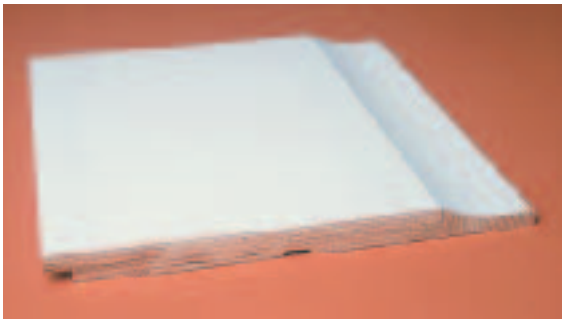
LOUISIANA-PACIFIC

Louisiana-Pacific's borate-treated SmartStart trim, fascia, and soffit material is designed to complement the company's SmartSystem family of exterior cladding but can be used with other siding materials as well. The trim and siding are warranted for 30 years, with a 7-year 100% repair-and-replacement warranty.

JEFF CLARKE

Clear Lam

LVL lumber has revolutionized the framing industry, and Pacific Wood Laminates — the manufacturer of Clear Lam trim — hopes to do the same for finish work. Clear Lam is an LVL material that's faced with MDO on one side and factory primed on all four edges. It's available in thicknesses from 5/8 to 1 1/2 inches and in nominal widths from 3 to 12 inches. Unlike other engineered wood trim materials, Clear Lam comes in a variety of lengths as well, ranging from 8 to 24 feet. Although it's more expensive than most engineered wood trim — comparable in price to high-quality cedar or redwood — the company claims that its strength and stiffness does away with the need for a subfascia, saving both labor and materials. Pacific Wood Laminates also manufactures rustic and shiplap siding from MDO-faced LVL material. Both siding and trim carry a 10-year warranty.



Pre-mitered corner boards and lap siding are two of the Clear Lam MDO-faced LVL trim and siding products manufactured by Pacific Wood Laminates. The company also makes a textured veneer-faced LVL trim called Socomi-Lam.

Fiber Cement

With its proven durability, excellent paint-holding ability, and resistance to fire, fiber cement has quickly emerged as a major player in residential siding. Its popularity has recently been boosted by the development of thick, low-density fiber-cement trim materials, which can be applied to stand proud of thinner siding without shimming. (Standard fiber-cement material is too dense to nail through in thicknesses of more than 1/2 inch or so.) Lap siding is still the most frequently used form of fiber cement, but several manufacturers also produce fiber-cement panel siding designed to resemble shingles, stucco, brick, and stone.

James Hardie Siding Products

James Hardie has recently expanded production of its 4/4 Harditrim trim boards, which have become available nationally for the first time. (That production increase was made possible by James Hardie's purchase of Cemplank's fiber-cement operations late last fall. Hardie will continue to manufacture Cemplank's existing product line and will operate the company as a separate division of its own operations.) James Hardie also manufactures soffit panels in both ventilated and unventilated styles.

Hardie's wide range of lap, shingle, and panel siding includes its ColorPlus siding collection, which comes in six paint colors and four colors of stain. Matching nails, caulk, and touch-up paint are available for each color option. In addition to the manufacturer's 50-year warranty on the siding itself, the ColorPlus collection carries a 15-year paint warranty and a 10-year stain warranty.

JAMES HARDIE

James Hardie's 4/4 Harditrim trim boards are easily installed proud of thinner siding. A thinner fascia material is also available. Both materials come in smooth and cedar-textured versions.

CERTAINTEED

This fiber-cement shingle panel from CertainTeed is available in a range of prefinished colors and features a random-width pattern and full-cut edges for a realistic appearance.

WeatherBoards

WeatherBoards siding, from CertainTeed, comes in both smooth and textured versions of lap, shingle, and panel siding. The company also manufactures compatible soffit material, including a recently introduced ventilated soffit. Although CertainTeed does not manufacture a fiber-cement trim, some time this spring the company expects to introduce a proprietary plastic trim designed for use with its fiber-cement siding. WeatherBoards siding is available in 14 pre-painted colors.

Nichiha Wall Systems

According to Nichiha, its imitation brick and stone siding panels offer the feel and appearance of masonry without the weight, cost, and scheduling problems associated with the real thing. The company uses a proprietary mounting system consisting of steel brackets that engage slots in the panel edges. The panels are said to be suitable for either feature-wall or whole-house applications and can be used indoors or out.

NICHIHA USA

Nichiha's Vintage Brick fiber-cement panels are available in seven colors. Like the company's stone-textured siding, the brick panels are secured to the structure with metal clips, leaving a ventilating air space between panel and substrate to prevent moisture buildup.

Plastic

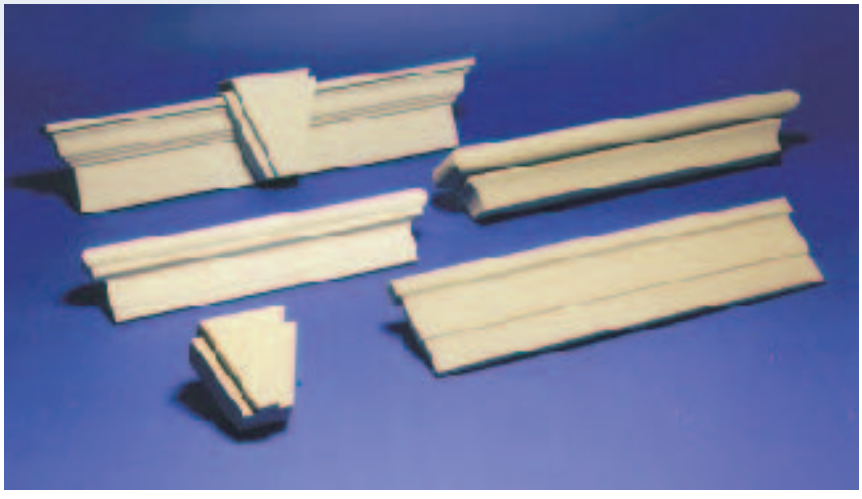
Plastic trim differs substantially from one manufacturer to the next, depending on the chemical composition of the specific plastic used. Cellular PVC, for example, is an extruded material that's best suited to being formed into boards, moldings, or other fairly simple shapes. Polyurethane trim, on the other hand, is cast in rubber molds, which makes it adaptable to complex built-up trim elements, dentil moldings, louvers, and door and window surrounds.

Unlike natural and engineered wood, most plastics absorb little or no water, making them highly resistant to freeze-thaw damage and dimensional changes caused by fluctuations in weather and humidity. On the other hand, plastics are generally more subject than wood to shrinkage and expansion caused by changes in temperature. A length of trim that fits perfectly when installed on a warm summer day may develop large, painfully obvious gaps when cold weather arrives. To avoid such problems, some manufacturers suggest cutting plastic trim a fraction of an inch long and spring-fitting it into place, while others recommend filling loose-fitting butt joints with caulk.

On a dollars-per-linear-foot basis, plastic trim is much pricier than wood. PVC trim, for example, typically sells for about 50% more than D-select pine, while polyurethane trim is three or four times the cost of pine.

Canamould

Canamould trim consists of an expanded polystyrene core encased in an extruded cementitious coating similar to synthetic stucco. Like polyurethane trim, it's available in a range of ornamental features, including window trim and surrounds, cornices, and exterior moldings. According to the manufacturer, the fiberglass-reinforced coating is highly resistant to cracking. It's also said to be somewhat more flexible than polyurethane, enabling it to move slightly with the structure, rather than opening at the joints.



CANAMOULD

Canamould's polystyrene-cored moldings and architectural trim have an extruded coating that closely resembles real masonry. They're most often used with brick, stone, or stucco siding but are also available with a factory paint finish, making them adaptable to other siding materials as well.

Plastic

Marley Mouldings's Pro Series millwork is prefinished with the company's Redi Finish coating, which is available in several light colors and carries a 10-year warranty. The factory finish can be painted or left exposed. Some of the company's moldings are also available with a stainable finish.

MARLEY MOULDINGS

Marley Mouldings

Marley Mouldings has been manufacturing cellular vinyl door, window, and shutter components since 1971, and claims to have more than 2 billion feet of material in service. Its Pro Series exterior millwork is available in dozens of standard molding profiles, including crown molding, brickmold, and flat boards.

EDGE BUILDING PRODUCTS

Perma-Trim PVC trim boards, from Edge Building Products, are said to have excellent long-term resistance to weathering when unpainted. When paired with a durable unfinished siding, like these white cedar shingles, there's no need to lift a brush.

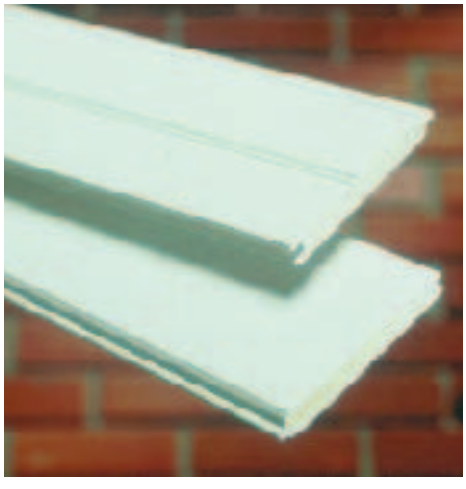
Perma-Trim

Edge Building Products manufactures two versions of PVC trim boards. According to the company, its Perma-Trim boards never need painting, thanks to a formulation that contains more titanium dioxide pigment than its competitors. (Perma-Trim can be painted if desired, although only light colors should be used, to prevent heat distortion.) The recently introduced Stabilex trim is reinforced with flax fiber, making it stiffer and easier to handle in longer lengths. Stabilex costs about 20% less than Perma-Trim but must be kept painted.

Royal Wood

Royal Wood trim, from Precision Composites, has a composite core of foamed plastic resins and wood fiber that's coextruded within an outer shell of ASA acrylic plastic. The outer skin is said to resist UV yellowing better than PVC. Because the core material is a beige or brown color that contrasts with the skin, exposed end cuts must be painted for appearance. Unlike most plastic trim, Royal Wood can be painted in dark colors because the ASA plastic is resistant to heat distortion to a temperature of 200° F.

Royal Wood trim, from Precision Composites, is available as a beaded tongue-and-groove paneling as well as moldings, flat boards, and one-piece inside and outside corner trim. The corner trim is available in 20-foot lengths, for efficient application on two-story structures.



ROYAL WOOD

Plastic

Style Solutions

Style Solutions — formerly known as Style-Mark — manufactures a vast array of polyurethane trim elements, from simple boards and moldings through door and window surrounds, gingerbread, louvers, and balustrade systems. Style Solutions products carry a lifetime warranty on the polyurethane substrate, with a 1-year warranty on the white factory primer. According to the manufacturer, its products can be painted with any good-quality oil or latex paint.

STYLE SOLUTIONS INC.

Style Solutions's E-Vent polyurethane eaves vent is available in crown and dentil styles and features a fiberglass screen that keeps out insects while providing efficient attic ventilation.

Manufacturers

Engineered Wood

Georgia-Pacific Corporation
Atlanta, Ga.
800/284-5347
www.gp.com

Louisiana-Pacific Corporation
Huntersville, N.C.
800/299-0028
www.lpcorp.com

Masonite Corporation
Chicago, Ill.
800/255-0785
www.miratectrim.com

Pacific Wood Laminates, Inc.
Brookings, Ore.
541/469-4177
www.socomi.com

Temple
Diboll, Texas
800/231-6060
www.temple.com

Weyerhaeuser Building Materials
Klamath Falls, Ore.
800/417-3674
www.weyerhaeuser.com

Fiber Cement

CertainTeed Corporation
Valley Forge, Pa.
800/233-8990
www.certainteed.com

James Hardie Building Products
Mission Viejo, Calif.
888/542-7343
www.jameshardie.com

Nichiha Wall Systems
Atlanta, Ga.
866/424-4421
www.n-usa.com

Plastic

Canamould
Birdsboro, Pa.
800/238-2541
www.canamould.com

Edge Building Products
Bedford, N.H.
603/472-7171
www.permatrimboard.com

Marley Mouldings
Marion, Va.
800/368-3117
www.marleymouldings.com

Precision Composites, Inc.
Phoenix, Ariz.
866/899-3320
www.royal-wood.com

Style Solutions
Archbold, Ohio
800/446-3040
www.stylesolutionsinc.com