











Product Monitor

## Thermally Modified Wood Heats Up the Siding Market

The high-performance product, which has had success in Europe, is starting to make an impression on the U.S. market

By Charles Wardell

Although thermally modified decking and siding has been available in Europe for at least two decades, it's a newcomer to U.S. and Canadian markets. But sales are growing. Prices are on par with ipe.

A lot of dealers and builders don't know much about it, but those who have tried it give rave reviews. One of these is Sandy Jensen, sales manager at Sawdust Custom Mill in Las Vegas, which carries the Thermory ash brand of siding. "I have been a wood salesperson for over 20 years," she says. "I have seen no other wood that compares to this in terms of color, consistency, grade, stability, and durability. In three years of selling this I have had no callbacks."

The siding has been spec-ed by custom home architects as well as by homebuilders working in luxury housing developments. Jensen says she has sold it into more than 30 projects in the past year alone with very positive results.



Thermally modified wood's durability and attractive appearance are leading to increased popularity, especially on high-end projects

Thermally treated wood's big selling point is that it is decay-resistant and non-toxic. No chemicals are used in the treating process. Instead, wood is placed in a kiln where temperatures are slowly raised to 400 degrees F or more, then held for several hours. Because the temperatures in the kiln exceed the wood's combustion temperature, air is evacuated and replaced with steam. "Wood becomes brittle when the outside dries faster than the inside," says Francis James, Thermory product specialist with Weston Premium Woods in Brampton, Ontario. Steam helps it dry evenly and keeps it from becoming brittle.

Other manufacturers use a similar process. "We're basically making petrified wood, then steam-blasting moisture back into it," says Thomas Flynn with Reclaimed Woods of the World, which is developing a siding it tentatively plans to call Thermaseal.

The treatment leaves no food for bacteria or mold. "Because we cook all the sap and resin out of the wood, there's no nutritional value," says Igor Danchenko, founder and president of the Westwood Timber Group, which owns a kiln in Macon, Ga. The process also alters the wood cell structure, making it moisture-resistant and dimensionally stable.

Although Thermory makes all of its siding from North American ash, Flynn's company is experimenting with other species, including sapgum, hackberry, elm, and poplar. "Poplar is almost as strong as ash," he says. "It also has one-third the weight and density." He says that moisture resistance after treatment doesn't vary much between species, but each offers a somewhat different look.

Dealers who want to offer this product should look at a lot of samples and ask a lot of questions to make sure they understand exactly what each company offers. "The reason we decided to work with Thermory is that they have a long track record of selling this in Europe and are able to supply us with the grade that our customers want," Jensen says. Her customers demand clear stock, and Thermory is able to provide it consistently.



Thermory ash siding is used for an exterior accent wall of a luxury project in Las Vegas.

Appearance is what initially attracts most architects, builders, and homeowners to thermally treated wood. The ash has a rich brown color, which many see as a warm complement to cold modern architecture. But it won't stay that way without

some sort of coating—sun and rain cause the wood to patina to a silvery gray. You have to use an oil-based product because the wood doesn't absorb water.

Jim Smith of Mark Tanner Construction in Truckee, Calif., has used the siding and decking product, and says that it grays especially quickly under the intense UV of the high Sierras, prompting some customers to let it weather. "The UV here is so strong that everything grays," he says.

In Las Vegas, by contrast, Jensen says that everyone wants to keep the siding brown. "That means a coating needs to be reapplied every six months, at least at first," she says. "But it's a simple wipe on/wipe off finish with no sanding needed."

In addition to color and weather resistance, builders also like the material's workability. "It's easy to work with when compared to exotic species like ipe," says Toronto contractor Rosario Ungaro. "Cutting is extremely easy because there are no resins or sugars in the wood. It leaves tools and blades clean with no gumming." The wood also comes out of the kiln about 30% lighter than when it went in, making it easy to handle. Jensen adds that it's flatter than ipe and that there's no need to pre-drill except at the ends of boards: most installers use self-tapping screws.

Thermory's newest introduction makes installation even easier; its Press and Click Strip siding consists of furring strips with protruding plastic clips and shiplap siding boards with grooved backsides. The installer fastens the strips vertically to the wall every 16 inches and then clicks the boards in place over them. Boards come with interlocking end joints similar to those on hardwood strip flooring. There are no exposed fasteners in the finished wall, and the furring strips create a vented rainscreen.

Charles Wardell is a contributing editor for PROSALES.