FAULTY PLYWOOD SENDS LAWSUITS THROUGH ROOF

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News

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A fire-retardant plywood that has become a standard building material in town house developments in the last decade has now been found to decompose after only a few years, leaving homeowners and builders with leaky and unsafe roofs and large repair bills.

The plywood, called FRTP, for fire resistant treated plywood, has been used in the roofs of a million housing units east of the Mississippi, according to the National Association of Home Builders.

Since the problems were first discovered in New Jersey several years ago, scores of lawsuits have been filed against makers, suppliers and insurers.

And as the courts decide who is responsible, developers have spent millions replacing defective roofs and homeowners have begun organizing to demand reimbursement.

The plywood was introduced after fire codes were changed in the early 80's, just in time for the long nationwide building boom.

Now that the boom is past, worries about the plywood come on top of a glutted town house market, falling prices and a rash of builder bankruptcies. People involved in the litigation say the issue could match the legal furor that arose over the costs of removing asbestos 20 years ago.

"It's a big issue in New Jersey, and it probably will be in other states," said Marshall Frost, a New Jersey engineer who is acting as a consultant to the state and to a number of the litigants.

Lawsuits have been filed in Connecticut, Arkansas, Virginia and Florida, but the lead has been taken by New Jersey, where 45 suits have already been filed seeking more than \$100 million in damages from makers and suppliers of the plywood.

One of the first that sued is one of the state`s largest condominium builders, K. Hovnanian Co. It sued on behalf of its 32 New Jersey developments after a section of crumbling roof in a Lawrenceville condominium gave way under two workers, injuring one of them.

The repairs are costly, and though builders are now required to insure all new homes in New Jersey for 10 years-the only state in the nation with such a law-most private insurers have so far refused to pay claims on the damaged roofs.

The building association estimates the minimum cost of replacing the roofs at \$2,000 per unit, though local builders think \$3,000 is a likelier minimum figure.

Under the lower estimate, the bill to replace all of the sheathing would run to \$2 billion.

The New Jersey Department of Community Affairs, which oversees New Jersey's housing market, says the potential cost of fixing the roofs in that state ranges from \$30 million to \$130 million.

The culprit, according to scientists at the U.S. Department of Agriculture`s forest-products laboratory, is the chemical treatment of the plywood with organic and inorganic salts.

Heat built up on roofs by the sun-at temperatures as low as 150 degrees Fahrenheit-sets off the fire-stopping acidic reaction that the wood's designers intended to happen only at the temperatures of an actual house fire, about 400 degrees.

The heat and the chemicals attack the cellular structure of the wood, causing it to weaken.

The wood treaters and suppliers maintain that the product is sound. They say the problem has arisen only when it is improperly installed and the attics inadequately ventilated.

"With improper levels of moisture there is a problem," said John Ferry, secretary-treasurer of the American Wood Preservers Association, a defendant in several lawsuits. "But with proper ventilation you don't get that problem."

The builders reject this argument, claiming that the decomposition of the plywood begins on the sheathing`s top surface, under the shingles, not on the underside, where ventilation might help.

Federal investigators at first leaned toward the ventilation argument but have since moved away from it. Still, many condo owners have installed roof-mounted exhaust fans throughout New Jersey.

Before the plywood was introduced in the early 80's, town house developments were usually built with two-foot-high masonry parapets extending above the roof line between each house.

The new plywood allowed builders to eliminate the parapets using four-foot-wide pieces of the plywood on either side of a fire wall.

Every attached-housing development with smooth roofs built east of the Mississippi since then most likely contains the material. The region shares a code for fire safety in buildings. The wood is not generally used in single-family homes and would not be discernible to an untrained shopper.

Since the evidence of the defects first appeared in 1987, several manufacturers have announced that they have eliminated the chemical that causes the problems.

But state and Federal experts refuse to say these steps will solve the problem.

Ferry declined to specify the chemical, and manufacturers have so far refused to reveal exact formulas.

One plaintiff in the suits is Millponds, a 400-unit town house development in Marlboro Township, N.J., where all of the fire-retardant parts of its roofs are in various stages of decay, said the homeowner's association's lawyer, E. Richard Kennedy.

Kennedy is credited with having first traced the problem to the wood itself in 1987, when a succession of roof leaks defied routine repairs.

As the suits make their way through the courts, condominium owners have been cautioned that their roofs could fail under a heavy snowfall, and some suburban fire departments are warning firefighters to be careful when crossing town house roofs.

New Jersey builders, owners and state officials are leading the legal and technical response to FRTP because the state's mandatory new home-warranty law has acted as an early warning of the problem by providing and analyzing records of such complaints. But failures are beginning to be reported in other states.

An addition to the Carl Robinson minimum security prison in Enfield, Conn., began leaking through its FRTP roof within two years of its completion in 1986, and the state is sueing contractors and suppliers for the cost of replacing the roof.

Pulte Home Corp., one of the nation`s biggest home builders, has replaced such plywood in several hundred houses in Florida, Georgia, Maryland, Virginia and Illinois so far, and is still inspecting the thousands of row houses it has built in the last decade.

It, too, is suing lumber manufacturers and treaters, and has promised to repair any faulty roof.

Hovnanian, which builds in Florida as well as in the New York metropolitan area, has already spent nearly \$1 million replacing the plywood roofs of its 440-unit Society Hill at Lawrenceville, N.J., the condo development where the workmen fell, Dennis A. Estis, a lawyer for the builder, said.

Like Pulte, Hovnanian has vowed to replace all faulty plywood, but it retreated from that promise when the extent of the problem became clear.