Blu is the new green

Treated wood protects against mould, insect infestation and is environmentally safe

Tracy Hanes, Toronto Star

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A series of townhouses in Vaughan herald a development of a different colour.

The 22 units in Vellore Village, being built by Eden Oak Homes near Highway 400, are bright blue, thanks to an innovative lumber treatment process that prevents moisture from settling into wood, thus preventing mould and fungus growth, wood rot and infestations by insects such as carpenter ants and termites.

BluWood, developed in the U.S. in 2001, will be officially launched in Ontario next month and can be used in all wood framing of a residential or commercial building, including the roof, wall, floor, plywood, decks, trusses, joists, moulding and trim.

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Standing in front of the 22-townhouse development by Eden Oak Homes in Vellore Village in Vaughan, the first development in Ontario to use BluWood for construction are: left to right, Erwin Leonov and Mark Foster of BluWood Canada, Frank Lanza and Bernie Torchia of Eden Oak Homes and Corrado Distefano of Alpa Lumber.

While products that protect against mould and insect penetration aren't new, BluWood's environmentally friendly aspects make it revolutionary. It produces no toxins, odours or off-gases and can be safely disposed of in landfill. It's listed in the GreenSpec directory, a U.S. listing of "green" building products and is also recognized by the LEED (Leadership in Energy and Environmental Design) building system. Shelburne Wood Protection, one of the province's largest wood treatment facilities, purchased the exclusive rights to treat lumber with the two-step process and sell the product in Canada. The Ontario distributor will be Mississauga-based Alpa Lumber, which supplies about 60 per cent of GTA builders with lumber, joists, roof trusses, windows and stairs.

The blue substance is merely a non-toxic dye that helps to show the coverage area of the wood and gives BluWood a unique marketing angle

"We read about the product in a lumber industry newsletter, followed up and it escalated from there," says Erwin Leonov, vice-president of operations for Shelburne Wood Protection/BluWood Canada, based in Shelburne. "It made sense, as we were already in the wood-treating business." BluWood has been in use in the United States for six years and is "well proven," says Corrado Distefano, certified engineering technologist for Alpa Lumber. The product has been used on 600 million board feet of wood and for construction in states from Florida to Minnesota. Distefano says it will carry a slight premium over regular lumber (yet to be determined). For the first part of the BluWood process, an infusion substance is absorbed into the lumber, interlocking with the wood fibres to create a water repellent, semi-permeable film, which controls moisture absorption and allows the wood to breathe. The second part is a preservative that provides protection against mould and insects such as termites. The blue substance is merely a non-toxic dye that helps to show the coverage area of the wood and gives BluWood a unique marketing angle.

Eden Oak is the first builder in Ontario to use it in a new housing development. "Moisture is one thing you can't escape in this environment 12 months a year. It's the root of many problems in a home," says Bernie Torchia, vice-president of Eden Oak. "We all aim to build a good product, but during construction, moisture causes swelling and warping of lumber."

After a house is finished, moisture penetration can lead to mould growth. "Mould is a major problem in this business, unfortunately, and there's a lot in new construction," says Frank Haverkate, owner of Haverkate and Associates, an indoor environmental testing and consulting company specializing in indoor mould growth in residential and commercial buildings.

The wood will also prevent another major problem for Canadian homeowners

Haverkate has done testing for BluWood Canada. "A lot of it is not the builder's fault. Homebuyers may not manage the humidity levels in their homes properly or there may be mould in the lumber from the yard. This process foolproofs the product all the way through, on the building end and on the homeowner's end.

"One of the advantages is that a lot of the lumberyard issues will be removed," Haverkate says. "A lot of lumber sits in mud there. BluWood is the first product to address the root cause of wood rot and mould growth, which is moisture."

Torchia says: "If this performs like the specification sheet says, it's almost like an insurance policy against future problems. "We honestly see the benefits in it. Indoor air quality and environmental concerns are on the minds of buyers and with the whole green building revolution, we think the time is right for this."

Torchia says houses built 50 years ago had more air leakage and there were five to seven air exchanges an hour. Today's houses have three or four and Energy Star homes less than three, which makes it a greater challenge to manage the humidity levels in these more airtight homes.

The wood will also prevent another major problem for Canadian homeowners: termites. According to Pest Control Canada, termites cause more damage in this country than tornadoes, hail, windstorms and hurricanes. According to the University of Toronto's entomology department, termites are a multi-million-dollar plague in the city, covering 1,000 city blocks.

U of T research indicates that 21 per cent of Canadians reside in municipalities that have become infested with termites. Based on the rate of expansion experienced in Toronto, within the next 50 years termites will become a major threat to at least 25 per of the country's housing stock.

Distefano says he has been recently talking to lumber distributors in the Kincardine area, about 200 kilometres northwest of Toronto, where termites have also become a major problem.

Haverkate says homeowners' insurance policies do not protect against mould, and while ripping out drywall and replacing it is not too costly, it gets very expensive to replace wood components, such as framing, affected by mould. Haverkate's tests included placing BluWood-treated drywall and wood framing outdoors, along with unprotected samples for two months. Mould growth was evident and abundant on the untreated drywall and light growth on the untreated wood, while the BluWood treated samples showed no visible mould growth.

"Most impressive factor for us, and for the indoor air quality of the buildings that would be built with BluWood, is that there are no negative implications such as VOCs (volatile organic compounds, found in substances such as paint, which can present health risks)," Haverkate says.

BluWood was featured in an episode of Extreme Makeover: Home Edition last October

"This is important because a number of treatment products for mould growth in the market place VOC issues and are in some cases, designated, shipped and handled as a toxic substance." BluWood was featured in an episode of Extreme Makeover: Home Edition last October, when it was used to build a new home for a Michigan mother of six whose husband had died from what was believed to be toxic levels of spores created by mould growth in their previous house.

For more about Bluwood, visit http://www.bluwoodcanada.com. Eden Oak Homes and Alpa Lumber will be holding an invitational luncheon at the site next month for industry professionals such as architects, engineers, environmental consultants, builders, and renovators.

Those interested should contact Corrado Distefano at 905-456-9112.