

# Paint, insulation and even cabinets can be made healthier

## HOME



Dean Guernsey / The Bulletin

**Non-toxic building materials** like these paints and stains are becoming popular choices for health-conscious consumers.

## Builders choosing healthier materials

By Katrina Hays  
For The Bulletin

Lately it seems newspapers and magazines are filled with stories of "healthy" houses and "sick building syndrome."

While the housing industry has used materials such as fiberglass insulation, wood pressboard and petroleum-based paints for decades, many builders now are choosing environmentally sound and non-toxic alternatives to avoid the possible physical ailments associated with some building materials.

"Nowadays we build practically air-tight houses, and then we fill them with toxic materials — it doesn't make a lot of sense," says Anna Ruder, operations manager for Environmental Building Supplies of Bend.

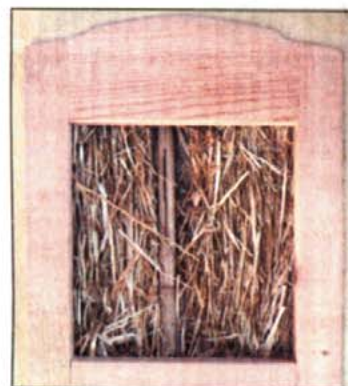
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**Mike and Kelli Hewitt, right, stand in the living room of their new home, which they built using environmentally sound and healthy building products.**

**A "truth window," bottom left, near the back door of the Hewitt home shows visitors what the home is built of — bales of straw.**

**Insulation, bottom middle, made of recycled denim fills the attic and some walls in the house.**

**The beech wood for these kitchen cabinets, far right, was reclaimed and contains no formaldehyde, a concern in some modern cabinetry.**



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## Healthy

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The toxic materials Ruder refers to are usually contained within building products themselves.

For instance, wood pressboard is commonly used as shelving in new cabinetry. Wood pressboard contains formaldehyde, which is toxic to humans.

The pink fiberglass insulation used to regulate the temperature of many homes also typically contains formaldehyde.

According to the Occupational Safety and Health Administration (OSHA) Web site ([www.osha.gov](http://www.osha.gov)), formaldehyde — a colorless, pungent-smelling gas — can cause watery eyes, burning sensations in the eyes and throat, nausea and difficulty breathing in some people exposed at elevated levels (above 0.1 parts per million).

The pressboard in a kitchen cabinet will outgas, or release, formaldehyde over the course of its lifetime, and humans will be exposed to the gas, according to OSHA. In homes with significant amounts of new pressed wood products, levels can be greater than 0.3 parts per million, above the level that can cause negative effects in people, according to the OSHA site.

OSHA says another potential toxin, volatile organic chemicals (VOCs), are emitted as gases from certain solids or liquids, including paints, stains and lacquers. Some of these products may have short- and long-term adverse health effects.

Concentrations of many VOCs are up to ten times higher indoors than outdoors. However, according to OSHA, no standards have been set for VOCs in non-industrial settings.

Concerns about potentially toxic materials have driven some homeowners to seek alternatives.

Jeff Codemo of Central Oregon Building Supply, which offers roofing materials, insulation and wallboard, says that consumers call him frequently asking for environmentally friendly products. "I guess people are becoming more aware," says Codemo. "The good thing is that we now have formaldehyde-free insulation."

According to Michelle Ruber, sales and marketing manager for Environmental Building Supplies, there are also options for that "new paint smell" that so often cause headaches in the owners of freshly painted homes. Low-VOC paints and stains are available, and are becoming more widely used in construction.

"There are some really cool finish lines being produced today," says Ruber. "They don't have any synthetic products, no solvents, no heavy metals, and no high-VOC content. And they are just beautiful."

Rodda Paints carries the Horizon line of low-VOC finishes. According to the Horizon paint Web site ([www.rodmapaint.com/ps\\_horizon.asp](http://www.rodmapaint.com/ps_horizon.asp)), volatile organic compounds are the ingredients in paint that

produce the fumes that make people sick. Chemically sensitive people, children, and the elderly tend to be particularly susceptible to products that outgas, says Ruber.

Cheryl Heinrichs, of Cheryl Heinrichs Architecture specializes in designing buildings with alternative and low-toxic materials.

"It's important," she says. "Your home is your sanctuary, your place to renew, to raise children safely. It should be the healthiest place you are, so it's especially important to build homes with healthy, green materials."

Mike and Kelli Hewitt agree. They recently built a straw-bale house between Bend and Redmond, and took great care to incorporate environmentally sound building materials into their home.

The Hewitts used recycled natural cotton insulation in their ceiling. This hefty blue insulation is made from recycled denim. According to a handout on the Ultra Touch insulation, unlike more common fiberglass insulation, the natural fibers used in Ultra Touch do not contain chemical irritants, and will not outgas any VOCs. Due to its density, it also provides excellent sound insulation.

The Hewitts chose to plaster the inside of their home with a plaster called Clayote, which is made of sand, clay and earth pigments. The Clayote Web site ([www.americancanclay.com](http://www.americancanclay.com)) says that unlike many paints, stains and synthetic plasters, Clayote contains no synthetic pigments, which can also outgas and cause headaches and nausea.

The kitchen cabinets in the Hewitts' home are made from reclaimed, 300 year-old beech wood. The shelving inside the cabinets, instead of being wood pressboard, is actually wheatboard, or strawboard. The wheatboard, available at Environmental Building Supplies, is fiberboard made from harvested wheat straw residue, and contains no formaldehyde.

"Our concern was to keep a green house," said Mike Hewitt. "It's a sustainability thing — toxins won't help us down a path to a healthier world."

Consumers may consider green products when building or refurbishing a home, but may believe it's too expensive. Ruber says most healthy paints, insulation and finishes do not cost dramatically more than their synthetic counterparts.

"We need to re-train our mindsets beyond what does it cost now, and ask ourselves 'What is the cost for the environment? What is the cost for our health?'" Ruber says.

People want to make educated, informed decisions about their health and what they put into their homes, she said.

"These (healthy) materials are just exquisite, and they won't hurt you or the world. That's a pretty great combination."

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