

THE MORNING CALL

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Homeowners discover the green value of cellulose insulation Allentown company is at the forefront of manufacture, installation, education

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World conditions have conspired to change the way homeowners think. First the economy forced people to scale back, then the oil spill in the Gulf of Mexico – along with other long-term environmental and energy-use concerns – put the focus on green alternatives. For homeowners, the impact of these issues shows itself in the wallet. Home improvements used to mean a granite countertop, tile in the bathroom or an outside patio. Now, the best reason to renovate is to make a home more efficient to maintain or run. Increasing a house's efficiency in heating, cooling and electric makes it more saleable, a better purchase and a better investment while you're living in it.

Since one of the most effective and least expensive ways to increase the efficiency of a building is by increasing the efficiency of its insulation, homeowners are rethinking the old standards. For years, the most common insulating material was fluffy pink fiberglass. In fact 90 percent of new homes built in the United States use this



Courtesy of fiberAmerica

Today's cellulose insulation is installed at 'settled density,' meaning it's packed so tightly that air leakage is virtually removed.

type of insulation. However, with increasing concerns over health and environment, and with closer examination of efficiency, people are questioning the reign of the fiberglass batt.

With renewed interest, homeowners are looking at cellulose insulation – essentially recycled newspaper – as a green alternative to fi-

berglass. The material itself has been around for 100 years, but technological improvements in manufacture and installation since the 1980s have brought the material kudos from users and environmentalists alike. Business is so brisk for Allentown's own fiberAmerica, a manufacturer of cellulose insulation products, the

company is expanding into Washington D.C., Maryland and Virginia. Its home base in Allentown is the manufacturing center, a location that is close to both source materials that include newspapers along the East Coast (for example, The Morning Call), and to seaports like New York and New Jersey, from where products are shipped around the world.

According to George Day, fiberAmerica's director of business development, cellulose insulation is gaining awareness. "More architects and engineers are recognizing the product for its ability to withstand fires. They're also understanding that when cellulose is packed densely enough, it removes air leakage. You can't get that with fiberglass."

Cellulose is made of 85 percent recycled newsprint, which has been treated with nontoxic borate compounds to resist fire, insects and mold. The industry claims a 3.5 R value for loose fill cellulose and 4.0 R value for dense pack cellulose, compared to a 3.2 R value of a traditional fiberglass batt. Since cellulose insulation is made from paper sources that might otherwise end up in landfills and it takes less

energy to make than any other insulation material, the product's manufacture itself is a greener process than that of other insulations.

FiberAmerica's Day explains that the effectiveness of the insulation is dependent on the quality of the material going into the process.

"We're dedicated to the highest quality source products," says Day, "so we don't use consumer recyclables. They can be contaminated by other materials such as plastic. We only use over-issue

newsprint, which includes the newspapers that don't get sold or are left at the plant."

Day emphasizes that the effectiveness of the insulation is also influenced by the quality of the installation. In the past, cellulose developed critics due to the tendency of the material to settle once inside a building's walls. Now, explains Day, the material is typically "installed at settled density," meaning that it's packed so tightly that gaps stay filled. "These issues have been corrected," says

Day. "Plus, with thermal imaging, [the installer] can see where any gaps are and make sure he installs enough."

FiberAmerica currently offers four different product versions: a standard blend for attics and walls in typical homes; an all-borate version to comply with certain building codes; a blend that contains stabilizers for modular home attic installations; and a wall spray version. He says that right now, the cost of installing cellulose is "running neck-and-neck with fiber-

glass." But as far as use and pay-back, cellulose is the standout.

"There's a payoff in new construction as well as retrofits," says Day. "You can save 30 to 40 percent on monthly utility bills, and unlike geothermal systems and solar panels for example, that have a long pay-back period, the pay-back for cellulose is two to three years. And that's not including any current incentives or energy tax credits."

For more information, visit fiberamerica.us.

Comparing cellulose to fiberglass

Cellulose insulation manufactured from recycled paper is the least polluting and most energy efficient.

- Cellulose has the highest post-consumer recycled content. The fiberglass industry averages 35% recycled glass, while the cellulose industry averages a minimum of 80% recycled content.
- It takes more than 10 times more energy to produce fiberglass insulation as cellulose insulation.
- Due to air circulation and natural convection, the R-value of blown in fiberglass insulation decreases by as much as 50% as the temperature drops from 45° degrees Fahrenheit to 18° degrees Fahrenheit.
- Substantial and well-documented public health threats are associated with fiberglass. Fiberglass insulation is required to carry a cancer warning label in compliance with OSHA's Hazard Communication Standard.
- No adverse health effects from cellulose insulation have been identified.

Courtesy of the Natural Defense Council

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