

The Atlanta Journal-Constitution

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The Atlanta Journal-Constitution

September 4, 2005 Sunday Home Edition

SECTION: Homefinder; Pg. 3HF; A CLOSER LOOK

LENGTH: 599 words

HEADLINE: Foam insulation gets organic twist

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BODY:

Soybean derivatives can be poured over your cereal, tossed into a stir-fry or used to ink a magazine.

But one of the most recent and more innovative uses of this humble little legume is to make your home quieter, cleaner and considerably more energy efficient.

Spray foam insulation has traditionally been made with petroleum products, but a few years ago, a soy-based product from BioBased Systems entered the marketplace, offering a more organic alternative.

"This product sprays like a glue and then expands to close off all the places where air can come into a house," said Lance Keeling, Southeast account manager for BioBased Systems. "It also prevents the air flow that brings moisture in."

BioBased foam insulation behaves in a way similar to older petroleum-based products, such as Icynene, which has been around for 20 years. In the newer product, soy is altered on a molecular level to behave like a petroleum molecule, and in the process it's rendered inedible.

"It's not a food source when you get it to the polyol stage. It's no different [chemically] once you change the molecules around, and it behaves closely to a petroleum molecule," said Keeling.

According to Teresa Crosato of Icynene, the company's product has been a component of environmentally friendly building "since 1985. Our spray-in-place light-density soft foam insulation is a water-blown insulation system that has no formaldehyde" or chlorofluorocarbons.

One advantage to using foam insulation is that in addition to air-sealing a building's envelope --- walls, ceilings and crawlspaces --- it can fit around framing and structural components easily because it's sprayed where needed and expands within seconds.

Both Icynene and **BioBased products** come out as a liquid and quickly puff up to fill in any space where they're applied. Because they form a thick foam

barrier, they're highly effective at insulating walls, ceilings, floors and attics -- as well as sealing all those little nooks and crannies where air, pests and moisture can get past looser types of residential insulation, such as fiberglass batting.

Because the condensation of moisture in a house provides a welcoming environment for mold to develop, foam insulation is highly effective in preventing this. The tightly sealed building envelope also reduces the entry of allergens and dust.

Another side benefit is that foam insulation dampens sound between interior rooms and muffles sound from the outside, making for a quieter home.

Perhaps one of the greatest advantages to using more environmentally friendly products like these is that Uncle Sam soon will be giving tax credits to builders who construct energy-efficient homes.

The 2005 Efficient Energy Through Certified Technologies and Electricity Reliability Act provides for tax credits of \$1,000 to builders who construct homes that reduce energy use by at least 30 percent. A \$2,000 tax credit is in store for those homes whose energy use is cut by 50 percent.

The immediate credit goes into the builder's pocket, but home owners will get to keep more of their cash monthly in the form of lower utility bills.

And although it may add to the price of the home initially, long-term savings are seen as making up for it.

For more information on the products, visit www.biobased.net or www.icynene.com.

If you have a question or topic that you would like to see answered or discussed in A Closer Look, send it to Homefinder, A Closer Look, AJC, Eighth Floor, 72 Marietta St., Atlanta, GA 30303, or send e-mail to homefinder@ajc.com.

GRAPHIC: Icynene Icynene insulation, like the new soy-derived BioBased foam, is sprayed as a liquid, and then quickly expands to create a barrier against air flow, moisture, pests, allergens and noise.