

RESIDENTIAL DEVELOPMENT



Carl and Julia Hebinck outside their house on St. Marie Street in Meraux: Foam-insulated home is the first in Louisiana. STAFF PHOTO BY ELLIS LUCIA

It's a superhouse: Foam-built home slashes utility bills

By ALEX MARTIN
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Carl Hebinck turned a coffee break into a dream house whose highest monthly utility bill has been \$42.50.

The idea popped into Hebinck's head as steaming coffee rolled over his tongue from the cool Styrofoam cup he held in his hands.

"The Styrofoam cup was cool on the outside, but when I drank the coffee, I burned my tongue," Hebinck, 51, said. "When I'd finished, I turned the cup upside down, and I said, 'What a good idea for a house.'"

Hebinck's plastic foam home in Meraux's Lexington Place subdivision came from that good idea. The foam house is the first one in Louisiana, but there are others in Texas and in Wisconsin, Hebinck said.

Hebinck, who trains supervisors at Tenneco Oil Co.'s Chalmette refinery, studied literature on foam buildings for two years before building the house.

He supervised the building of the house, using St. Bernard contractors. Hebinck had supervised the building of small factories and transportation facilities while working for the Catholic church in Brazil.

The 2,000-square-foot house cost \$62,000 to build, including the grass, Hebinck said. A normal home that size would cost \$40-45 a square foot, while the foam home cost \$31 a square foot, he said.

Clad in yellow siding and bricks, it's a mild-mannered, all-electric suburban home.

But inside, it's an igloo. It's a beer-cooler. It's superhouse.

The secret is 12-inch thick blocks of polystyrene foam. The 2-foot-by-4-foot blocks are joined with a special glue.

The foam is four times better insulation than the recommended amount of fiberglass insulation, Hebinck said.

The eight-pound blocks have 5-inch-by-5-inch holes. Two steel rods cemented into the slab run through each hole. Concrete is poured around the rods until it fills the holes.

The rods are then tied into beams near the roof line.

"The frame is a lot like an inverted shopping cart," Hebinck said.

The roof has timbers with the foam blocks in between and is covered with felt and shingles like a conventional roof, he said.

Although Hebinck is now trying in a low-key way to market his services to

oversee the building of a new house, he said, he is not looking for a big market in new housing ideas.

"It got me angry," he said. "Why can't we give people an alternative to stick houses. I just think I was driven, in a way challenged, to do something.

"If it really works, it'll be good for the country and good for me."

Hebinck enthusiastically sings the praises of foam.

"It's so obedient. There's no waste. And it doesn't deteriorate," he said. "The beauty of it is that it's so cotton-picking simple that if the guy down the street wanted to build a house like mine, he wouldn't need me."

Hebinck said he believes the biggest thing holding foam building back is an undeserved bad reputation.

People confuse it with polyurethane foam, which burns and gives off toxic fumes, he said. The polystyrene foam, however, recedes from flames and is non-toxic.

Heat, coincidentally, is used to make conduits in the foam and cut the blocks, Hebinck said.

Another hindrance is people's perception of the foam homes when they are being built.

When Hebinck's house was going up, it had no windows until they were cut out of the blocks.

Hebinck said people asked, "You going to have any windows in that igloo."

"In Europe, it's the most used insulation," Hebinck said.

The highest electric bill Hebinck has had to pay in the four months he has lived in the foam home was \$42.50 in September.

"We had three days of 91 degrees and

several in the 80s," Hebinck said. He said the house is a "superhouse."

"We didn't think it would be this nice," he said.

But the foam isn't the only secret, Hebinck said.

"It's free and open like the old-time houses used to be — high ceilings and thick walls," he said.

Because circulation in the house is so good, there is no need for ducts, giving the house three additional rooms on the second floor, Hebinck said.

The heat pump, which heats and cools the house, is a one-ton unit instead of the four tons normally needed for a house that size, Hebinck said.

The house is sealed from the outside by double windows and thermal doors. But the house doesn't become stuffy, thanks to several heat exchangers that allow inside air to be sucked out the house and outside air brought in with minimal loss of heating or cooling.

For example, if the temperature is 90 degrees outside and 75 degrees inside, the outside air brought in by the exchanger will come into the house at 78 degrees, Hebinck said.

Each room also has a ceiling fan. All light bulbs in the house are so-called cool lights, drawing 20 watts in electricity to produce 100 watts of light, Hebinck said.

Not only is less electricity used to produce the light and the bulbs last longer, but the bulbs produce less heat, he said. The reduction in heat means the air conditioner doesn't have to work as hard.

In the bathrooms and kitchen, hot water comes out of the tap at 140 degrees from a tankless, on-demand water heater.