A CLOSER LOOK: Paint additive gives walls extra insulation

F.N. Rosenstock - For the Journal-Constitution
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One of the factors contributing to soaring utility bills is indoor climate control. Rooms that are too hot in the summer and too cold during the winter lead to higher bills year round.

Many people, like Kevin Hannan, buy newly built homes hoping that good insulation and modern construction techniques will eliminate these problems. Like Hannan, they are sometimes surprised when they don't.

"The master bedroom was always hot in the summer and cooler in winter compared to other rooms in the house," explains Hannan of his Smyrna home.

About six months ago, while watching a television program, he learned about an insulating paint additive that could help solve his problem quickly and relatively inexpensively. He decided to give it a try. "I bought five packets," he says of Insuladd. He used two packets to paint his master bedroom.

He followed the manufacturer's suggestion to paint only the surfaces in a room that had outside exposure.

In Hannan's bedroom, it is the ceiling and two of the walls. He used the additive in the primer coat because, according to the manufacturer, adding it to the color coat would lighten it about half a shade. Hannan says the additive didn't affect the primer's application or usual drying time.

The results were more than satisfying for him.

"I noticed the difference almost immediately. Before I painted, the room was hot. After I finished painting, I walked out for a few minutes and when I returned, the room felt like the rest of house."

That was six months ago. Now, during the winter months, Hannan is finding his master bedroom more comfortable, too.

Developed by NASA during the 1980s and '90s, the additive is among a wide range of technologies created to insulate its buildings around launch sites, says Tom Welter of Tech Traders, the manufacturers of Insuladd. It became available to the public in 1996 through NASA's technology transfer program.

Insuladd can be mixed into cement, stucco coating, adobe mix and interior or exterior oil or latex paints.

It is inert and non-reactive, so there is no smell or dust when it's poured for mixing. And, it is made largely from recycled materials.

The main component of the insulating additive is fly ash, a byproduct of coal-fired electric generating plants.

That, and aluminum calcium silicates that have a high capacity for reflecting radiant heat, are processed and made into microspheres "resembling a hollow beach ball," says Welter. "The product looks like fine beach sand and adds texture to paint."

While there are other radiant barrier technologies that are available ranging from 75 cents to $3 a square foot, the insulating additive costs about 6 cents per square foot.

This is an effective product for older homes without insulation or, as Hannan learned, in new homes as well.

He has painted two rooms in his home and is planning to paint his entire house with the insulating additive, especially his unfinished basement so he doesn't have to "worry about heating or cooling" there.

There is an unexpected benefit for him, too. It has added a bit of sound deadening. "There used to be an echo in the bedroom," he says, because of a double tray ceiling. "Now, it has the effect of adding heavy draperies," which absorb the sound. "It helps make the space feel more intimate."

For Hannan, though, the best result is in his bottom line.

"I've been able to lower my thermostat about three degrees in winter and raise it about two degrees in summer. The insulating additive has helped keep the house at a more even temperature, and I don't notice the air conditioning or heat running as frequently." He has noticed a savings on his utility bills.

For more information, visit www.pdca.org or www.insuladd.com.

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