



warmboard[®]
RADIANT SUBFLOOR

IN THE PRESS

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OPENHOUSE

INTERVIEW BY MICHAEL MCCARTHY

[BUILD IT]

Hot Foot

Radiant-floor heating has legions of fans, mostly for its energy efficiency. Before you buy, learn the basics.

Q & A Heating a research building in Antarctica is a recipe for disaster, because almost every system is going to be hammered by the big chill. So when U.S. scientists set up shop a few years ago in one of the most inhospitable places on the earth, they used radiant-floor heating—specifically, Warmboard (warmboard.com)—to stay cozy. It worked flawlessly. We chatted with **Marla Florez**, the company's marketing manager, about radiant-heat in the real world and how to make the right choices when it comes to this efficient system.

Q: How does radiant heating work?

A: The warmth and comfort we feel from the sun on a cool spring day or in front of a crackling fire on a cold winter's night is radiant heat. Radiant-floor heating uses a very subtle form of this same radiant energy. It gently and evenly heats the surfaces of objects in the room by circulating warm water under the floor. Heat loss is reduced, and the radiant heat remains in the lower part of the room—warmer near our feet and slightly less so near our heads, creating the perfect climate for comfort.

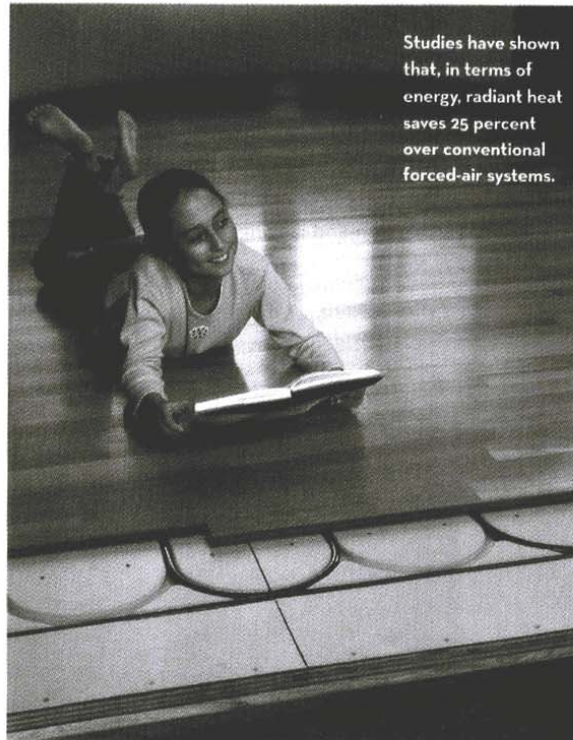
Because floor surfaces are so large, radiant heat can be the primary source of heating in a home.

Q: What's the difference between electric and hydronic radiant heat?

A: Electric floor warming is sometimes used in bathrooms for the sole purpose of warming your feet when you get out of the shower. Resistive wires or mats are embedded into the setting materials under the tile. This method is rarely a home's primary heat source. Hydronic heating uses tubes with warm water running through them and is simply another way to say radiant-floor heating.

Q: We often hear about the efficiency of radiant-floor heating, but how much energy can really be saved by these systems?

A: One recent study, released by Kansas State University in conjunction with the American Society of Heating Refrigeration and Air-conditioning Engineers (ASHRAE), showed that radiant heat



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Studies have shown that, in terms of energy, radiant heat saves 25 percent over conventional forced-air systems.

saves 25 percent over a conventional forced-air system. We've seen savings of up to 40 percent. Geographic location, heat loads, fuel sources and water temperatures determine a system's overall efficiency.

Q: Which flooring material conducts heat most effectively?

A: With the best systems on the market, flooring material shouldn't matter. For example, our company ensures compatibility with any type of floor covering, including hardwood, tile, stone and carpeting. Ample heat is delivered even through the plushest carpeting; tile and stone can be set over the system, and hardwood nailed directly to it. Ask representatives from any radiant-heat company how their products work with a range of floor coverings, and be sure to ask the water temperatures required to make their products effective. Remember, higher water temperatures require more energy—and your cost savings are lost.

Q: Can old flooring—say, reclaimed timbers—be used with radiant heat?

A: This is where you need to be careful. Some systems don't work at all with wide-plank or reclaimed timbers because these materials require higher water temperatures to heat the tubing beneath them. Our system accommodates reclaimed or wide-plank flooring extremely well and so do a range of systems from other companies. ■