



RAUPANEL™ DELIVERS THE HIGHEST OUTPUT IN THE RADIANT HEATING MARKET

As homeowners have become increasingly aware of the importance of energy-efficient building practices and products, especially upon feeling the effects of rising energy costs, more and more energy-efficient products are being integrated into residential new construction and renovation.

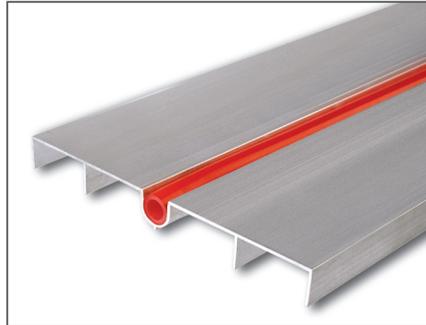
The rise in popularity of radiant heating systems as an alternative to traditional forced-air systems is one indication of a greater awareness about the enhanced efficiency and comfort offered by such technological advancements for the home. In fact, the Radiant Panel Association reported North

American sales of more than 330 million feet of hydronic radiant piping in 2004—a significant growth of more than 90 million feet (more than 35 percent) compared to sales from the previous year.¹ Widely used in Europe for many years, radiant heating has recently taken hold in the North American building market for its energy-efficient operation and for the enhanced comfort it offers homeowners.

Hydronic (hot water) radiant heating works by circulating heated water through pipes located beneath or encased within a floor. While traditional forced-air heating systems

blow hot, dry air around the home, causing drafts and sharp temperature swings, radiant heat quietly and continually heats a floor from within, and radiates heat upward to allow warm air to rise gently from the floor. This method enables a thermostat to be set several degrees lower than it would be with traditional hot air systems, without sacrificing comfort levels. As a low-temperature system that can use a variety of heat sources, including ground-source heat pumps, solar collection systems and condensing boiler technology, radiant heating can also offer up to a 30 percent operating cost savings when combined with such heat sources.

While radiant heating systems have become increasingly popular among those involved in the design, construction and purchase of homes, radiant heating has evolved to include a number of installation options. Traditional options include installing PEX pipe in poured concrete slabs, cement overpours and joist spaces. More recently, radiant heat installations have included those not only in a home's flooring, but also in places such as the walls and ceilings. The introduction of "dry" installation systems like REHAU's RAUPANEL™ have made these diverse applications for radiant heat more easily achievable, while also providing substantial advantages to the contractor, builder and homeowner.



Eliminating the need for a specialized concrete or gypsum cement installer, dry radiant heating systems allow for 100 percent installation by the heating contractor. This reduces a builder's construction timeline as the concrete/cement drying period associated with wet systems—which typically requires putting all other building projects

on hold—is not required. Complete, individual-piece dry systems like RAUPANEL offer even greater installation advantages, with a simplified assembly process (RAUPANEL is a complete, four-component system that requires no adhesives or other specialized tooling) that translates into earlier project completion.

Benefits of a dry radiant heating system are additionally experienced by the homeowner, as the low thermal mass of a high-performance system like RAUPANEL, which is about one-tenth the weight of a 1.5-inch overpour, facilitates a quicker response time. It additionally makes heating during the spring and fall "shoulder" months of the year much easier.

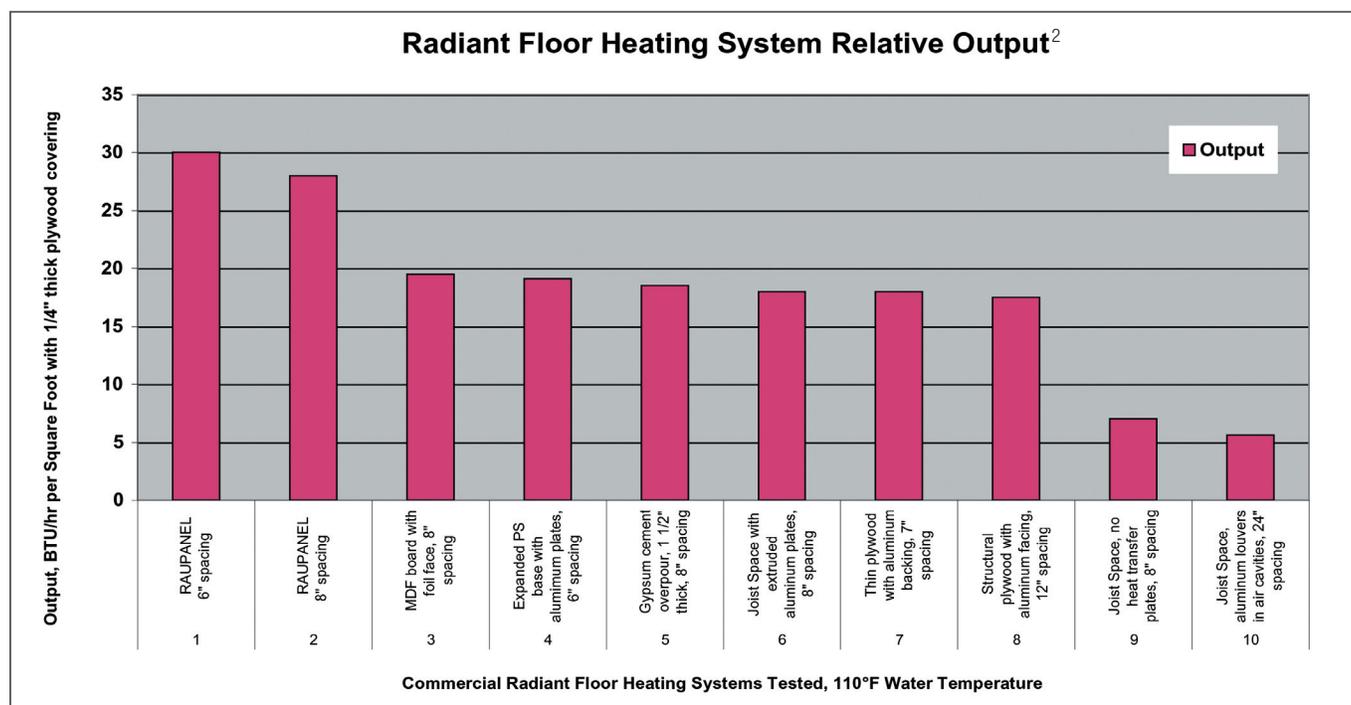


Results from a recent study by the Virginia Polytechnic Institute and State University specifically identify REHAU's RAUPANEL™ system (with 6-inch and 8-inch spacing between pipes) as an industry leader in providing the best overall output and thermal stability (50 to 60 percent more) when tested against competitive dry and wet systems at the same water temperature and flow rate.

The RAUPANEL system offers several key benefits that contribute to its superior

performance. At only 1.6 pounds per square foot, the system does not require structural reinforcements. In addition, the low thermal mass and extruded aluminum components of the RAUPANEL system promote high heat conductivity, resulting in a fast response time for maximum comfort. Furthermore, with only a 5/8-inch height, RAUPANEL is a low profile system that offers installation flexibility in transition areas of the home, such as between rooms or with different kinds of floor coverings.

REHAU's RAUPANEL system, a combination of aluminum panels, wood return bends, plywood spacers and 3/8-inch RAUPEX® cross-linked polyethylene (PEXa) pipe, offers a lightweight, efficient and easy-to-install radiant heating option for retrofit and new construction applications in today's home. To learn more about the RAUPANEL system and its benefits to homeowners, visit www.na.rehau.com/heating.



An independent study shows, when tested alongside competitors, RAUPANEL provides the best overall output per square foot.

REHAU, a global polymer processing company with more than 50 years of experience, offers innovative design solutions and customer service programs. With a

commitment to continuous product development and uncompromising quality, REHAU has emerged as a leading system supplier to automotive, industry and construction.

An independent, privately held company, REHAU has the expertise and versatility to cater to a diverse customer base-from small businesses to major corporations.

1- <http://www.radiantpanelassociation.org> (accessed April 2006)

2- Results based on findings from: Khanna, Amit. *Development and Demonstration of a Performance Test Protocol for Radiant Floor Heating Systems*. MS Thesis, January 2006.