How It Works!

VersaTherm is a key component of a radiant heating system; promoting heat transfer and distribution across the panel surface to the floor and room during system operation.

The VersaTherm panels are easily installed by snapping the panels together to form a uniform layer over top of the structural sub-floor, typically either a concrete slab or plywood and floor joist. The panels are arranged with the tubing channels (grooves) aligned to form a path in which the tubing is routed to and from the radiant manifold, circuit by circuit. The radiant tube is installed by pushing or stepping it into the tubing channels (grooves) of the VersaTherm panel. The metal tubing shields and return panel covers are then attached over top of the tubing and return panels. Finally, the floor covering is installed over top of the VersaTherm panels to complete the installation of the radiant panel.

VersaTherm’s channels will hold 1/2” radiant tubing manufactured in compliance with ASTM F876 (PEX), ASTM F2623 (PE-RT), or ASTM F1281 (PEX-AL-PEX). The tubing should be rated for radiant floor heating applications.

Typical Upper Level Installation:
1) Carpet & Pad – VersaTherm panels “Float” un-attached over the top of the wood sub-floor; tack strips for carpet are installed on plywood filler around perimeter of room between VersaTherm panels and wall; carpet and pad are installed as normal on top of the VersaTherm panel layer.
2) Hardwood – VersaTherm panels are “sandwiched” between the wood sub-floor and wood nailing surface (typ. ¾” plywood); 2” screws fasten wood nailing surface down through VersaTherm panels into wood sub-floor; hardwood floor covering is installed as normal on top of the wood nailing surface.
3) Ceramic Tile – VersaTherm panels are “sandwiched” between the wood sub-floor and cement board (typ. ¾” thick); 2” screws fasten cement board down through VersaTherm panels into wood sub-floor (mark and avoid tubing locations); ceramic tile floor covering is installed as normal on top of the cement board and isolation membrane.

Typical Basement Installation:
1) Carpet & Pad – VersaTherm panels “Float” un-attached over top of the existing concrete slab and vapor barrier; tack strips for carpet are installed on plywood filler around perimeter of room between VersaTherm panels and wall; carpet and pad are installed as normal on top of the VersaTherm panel layer.
2) Floating Floor Systems (engineered wood laminates) – VersaTherm panels “Float” un-attached over top of the existing concrete slab and vapor barrier; the floating floor panels are installed as normal on top of the VersaTherm panel layer.
Hydronic’s radiant panel system offers means by which radiant tubing can easily be embedded in the building’s floor structure. Heated water is then circulated through this tubing which in turn heats the floor surface. Unlike forced air systems that heat inconsistently and generate uncomfortable drafts, the heated floor surface radiates heat to the surfaces of other objects in the room to help create a more uniform and consistently comfortable room temperature. When the surrounding surfaces are at a more comfortable temperature, the room feels more comfortable at a lower air temperature which allows the heat source to use less energy and operate more efficiently.

Innovative!

The VersaTherm system is unlike any radiant system on the market! The panels snap together in minutes saving significant labor costs. Basement and upper floor retrofits are easy because the panels are pre-insulated and water-resistant. The use of 1/2" tubing allows for fewer circuits and smaller manifolds. The tubing is protected by metal covers reducing the possibility of puncture and damage during and after installation of the floor covering. The highly conductive metal surface maximizes system output and promotes an even temperature distribution across the entire floor surface. The panels are only 3/4" thick, minimizing construction issues common in over-pour installations.

Simple.

VersaTherm panels easily snap together and are self-contained. Heat transfer plates, insulation, and channels for the tubing are all built-in. Panels snap together, tubing is installed, and then metal cover plates are attached. IT’S DONE!

Installation is simple and easy because the panels are lightweight, easy to handle and have a low profile at only 3/4 of an inch tall. No additional structural reinforcement is required and floor height issues are minimized which means “prep-work” is significantly reduced. They are made of moisture and mold resistant materials: plastic, foam and galvanized steel. Also, cutting (if any) is limited to the returns at the end of each row, so VersaTherm can be installed much faster and at a far less cost than other systems.

Efficient!

VersaTherm is a high performance system but does not sacrifice efficiency. It uses the combination of metal on the surface, with high thermal conductivity, and built-in insulation underneath, to maximize the heat output at low water temperatures. The metal surface also promotes an even temperature distribution across the floor, minimizing cold spots. The low thermal mass allows for a quick response to changing load requirements. VersaTherm is unmatched in its ability to optimize system efficiency.

Versatile!

VersaTherm installs almost anywhere. It is easy to install on upper levels or in basements, and is equally well suited to renovations or new construction. Carpet and floating floor systems can be directly installed over VersaTherm, and it adapts readily to ceramic tile and hardwood floor covering.

Simple, versatile, cost-effective radiant heating. VersaTherm’s surface is highly conductive for exceptionally even temperature distribution and high heat output.
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Typical Basement Installation:
1) Carpet & Pad — VersaTherm panels “float” un-attached over the top of the existing concrete slab and vapor barrier; tack strips for carpet are installed on plywood filler around perimeter of room between VersaTherm panels and wall; carpet and pad are installed as normal on top of the VersaTherm panel layer.
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NOTE: Before installation of the VersaTherm panels, the radiant tubing or any part of the radiant system, Legend Hydronics highly recommends that a system design be completed for the panels. The installing contractor should also thoroughly review the system design and the VersaTherm Installation Manual before beginning installation. Technical products and project design support are available as part of the purchase of the VersaTherm system package. See your local representative for VersaTherm sales graphs, panel layout drawing support, project material estimates, training opportunities and other technical support details.

The radiant heating solution for new homes and renovations