



SubRay[®]

Subfloor Radiant System



Great Alternative to a Thin Slab

SubRay is an easy way to install radiant floor heating on top of existing frame or slab floors. SubRay can be installed as a whole-house heating system, or used to heat a basement or room addition.

Compared to Thin Slabs, SubRay is . . .

- **THIN** — 5/8" or 3/4" thick.
- **LIGHTWEIGHT** — Less than 2 lbs. per square foot.
- **FAST RESPONDING** — Twice as responsive as gypsum-based concrete.
- **AN EASY INSTALLATION** — No need to wait weeks for the slab to cure. No scheduling problems with separate subcontractors.
- **MOISTURE-FREE** — No hundreds of gallons of moisture to manage.

Compared to Other Slab Alternatives, SubRay is . . .

- **CLEAN** — No messy silicone needed.
- **TWO SIZES** — 15 mm (5/8") for 3/8" RadiantPEX; 18 mm (3/4") for 1/2" RadiantPEX or Onix.
- **SILENT** — Floating design. Won't pop or squeak like some aluminum plate systems.
- **QUALITY** — Cabinet-grade, Group 1 Baltic Birch. Meets specs of all wood flooring manufacturers.
- **ECONOMICAL** — Uses standard ASTM tubing and fittings.

FREE Design

Call 1-800-276-2419 for free design assistance on any SubRay installation.

See the Watts Radiant Product Catalog or visit www.wattsradiant.com for the entire line of hydronic and electric radiant heating/snowmelting equipment.



"Great product with tremendous design flexibility. Working an eight-sided floor plan was a snap with SubRay."

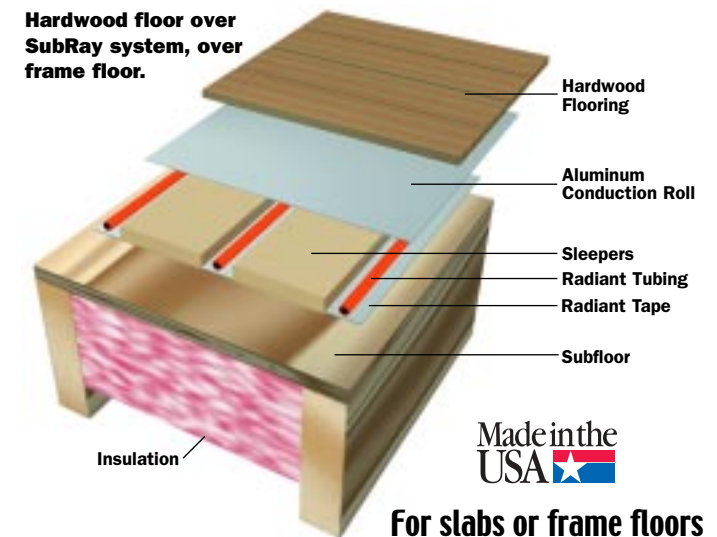
—Dave Yates
F. W. Behler, Inc.



SubRay Warms any Cold Floor

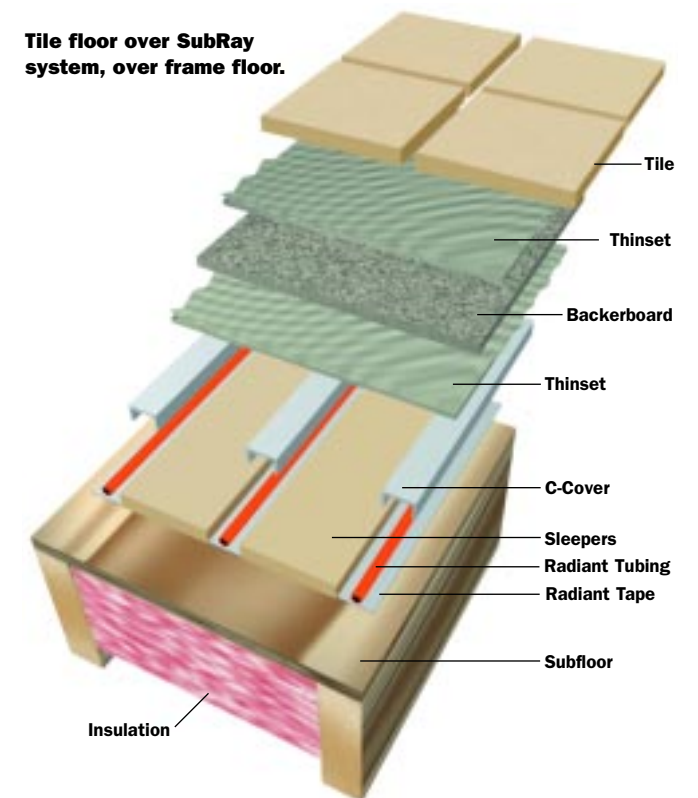
- Natural Hardwood
- Ceramic Tile
- Stone Tile
- Carpet
- Laminates
- Engineered Flooring

Hardwood floor over SubRay system, over frame floor.



For slabs or frame floors

Tile floor over SubRay system, over frame floor.



(NYSE: WTS) A subsidiary of Watts Water Technologies, Inc.

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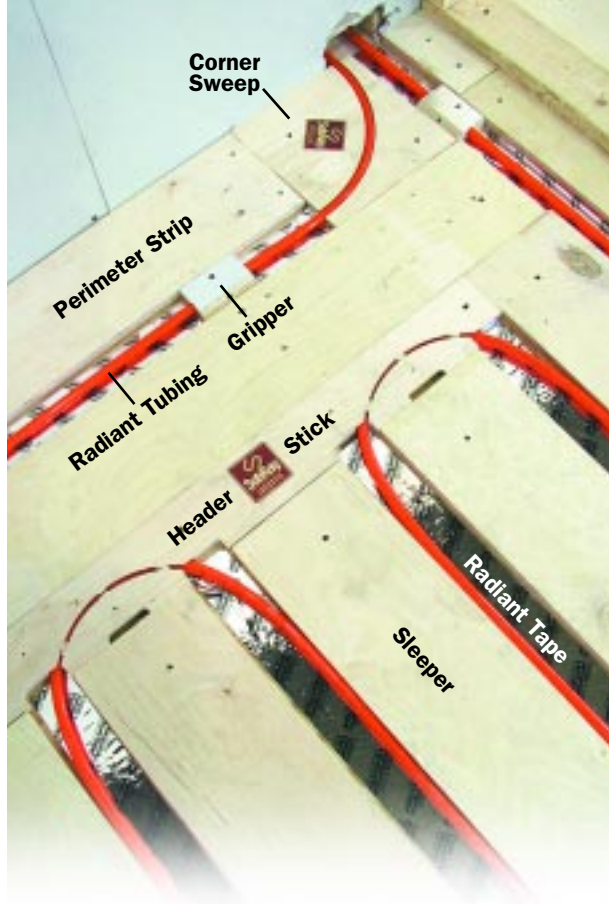
Toll-free USA & Canada: 1-800-276-2419

See our Product Catalog online at: www.wattsradiant.com

Watts Radiant

Floor Heating & Snowmelting

A subsidiary of Watts Water Technologies, Inc.



Anatomy of the SubRay® Radiant System

Header Sticks hold radiant pipe at each end of the room on 8" centers.

Sleepers are 6" wide and installed 2" apart. Sleepers support the finish floor.

Grippers are used to hold RadiantPEX® where it enters or exits the floor.

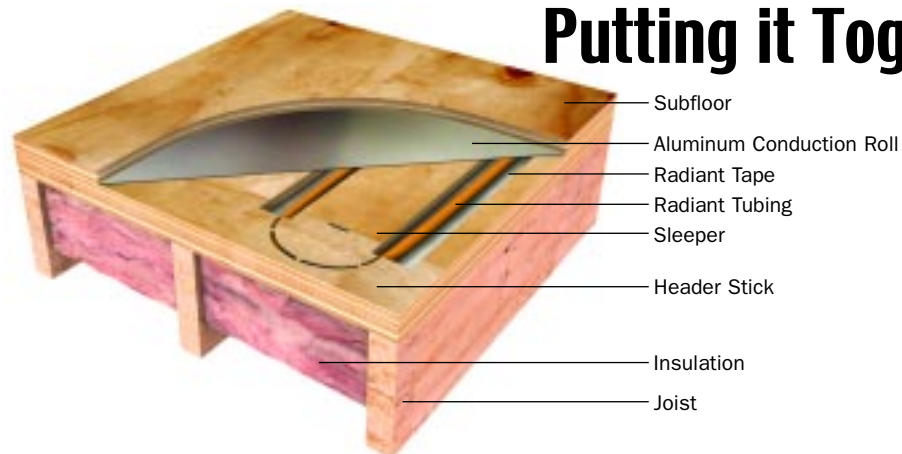
Radiant Tape reflects radiant energy to the floor.

Aluminum Conduction Rolls evenly spread the heat.

Corner Sweeps help RadiantPEX make 90° turns.

C-Covers protect radiant tubing from nails; or support tile backer board.

Note: All wood components made of Group 1 Baltic Birch.



Putting it Together . . .



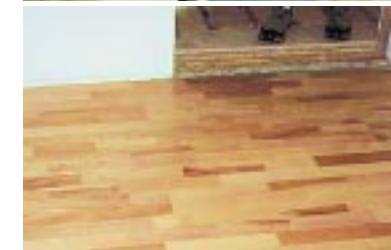
Installation is Quick and Easy.

1 Select location of supply/return manifolds, and lay out Perimeter Strips and Corner Sweeps around the walls.

2 Fasten down Header Sticks and Sleepers, adding Corner Sweeps as needed for turns (not needed for Onix™).

Maintain a 2" space between Sleepers using a chalk line as a guide.

3 Lay the Radiant Tape inside the radiant channel.



4 Using a screwdriver, pop up the Plate on the Header Stick.

5 Take the slack out of the radiant tubing in the radiant channel, and push the tubing into the Header Stick.

6 Tap the Plate back into place with rubber mallet and screw down. Header Plates are not needed for Onix installations.

7 Roll out the Aluminum Conduction Roll. Leave 1/2" between each row so you can see the radiant tubing underneath.

8 Lay down the finish floor and let your feet enjoy the best heat there is!

with Watts Radiant's Onix™ . . .

or RadiantPEX® Tubing.

