uponor

Fast Trak™

Installation Guide

For residential radiant floor heating in new construction, remodels, and retrofits

Uponor Fast Trak Installation Guide is published by

Uponor Inc.
5925 148th Street West
Apple Valley, MN 55124 USA
T 800.321.4739
F 952.891.2008
uponor.com

Uponor Ltd.
6510 Kennedy Road
Mississauga, ON L5T 2X4 CANADA
T 888.994.7726
F 800.638.9517

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Overview

Uponor Fast Trak™ is the ideal overpour installation method for remodel and retrofit applications. The preformed, knobbed panels make it easy to install 5/16", 3/8" or ½" Wirsbo hePEX™ crosslinked polyethylene (PEX-a) piping for radiant floor heating systems.

System Description

Uponor Fast Trak is available in two different options to meet any application: Fast Trak 0.5 and Fast Trak 1.3i.

Fast Trak 0.5

Fast Trak 0.5 (A5090313) is only ½" thick, eliminating the need to alter baseboards, moldings, or doors. The product is made for 5/16" Wirsbo hePEX piping and features an adhesive backing for easy installation to a slab or subfloor. The knobs on the panel feature holes to allow leveling compound to spread easily and bond firmly with the subfloor. The panels interlock to ensure proper alignment for piping installation. Depending on type of cement used and local code, the total installation height can be as low as ¾".

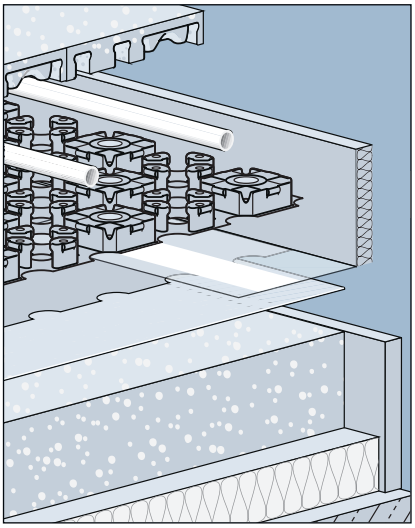

Figure 1: Fast Trak 0.5

Fast Trak 1.3i

Fast Trak 1.3i (A5090500) is slightly over 1¼" in height and is designed for ⅜" or ½" Wirsbo hePEX piping. Fast Trak 1.3i includes ½" insulation attached to the back of the panel, eliminating the added time and cost of installing insulation under the piping. The panels interlock to ensure proper alignment for piping installation. With a minimum of ¾" overpour, the total building height of the system is only about 2". This design gives a thermal break from the slab or subfloor and still has a manageable impact on the ceiling height, making for fast and easy installations in basement and garage applications.

Edge Strips

Edge Strips (A5091000) serve an important function when installing Fast Trak panels. The Edge Strips prevent the overpour from seeping under the panels, protecting the surrounding structure from moisture damage and expansion forces. The strips install between the load distribution layer and the vertical building parts, covering the edge joint. The existing edge joint must always include Uponor Edge Strips to the height of the leveling layer and the new floor covering to be installed.

Important! Do not remove the protruding sections of the Edge Strips until the floor covering is installed.

Movement Joints

Movement joints are joints in the overpour that separate the overpour fields. Movement joints must be extended with a suitable joint profile to the height of the leveling layer and new floor covering to be installed. Consult your structural engineer as to the placement and makeup of the construction, expansion, and control joints.

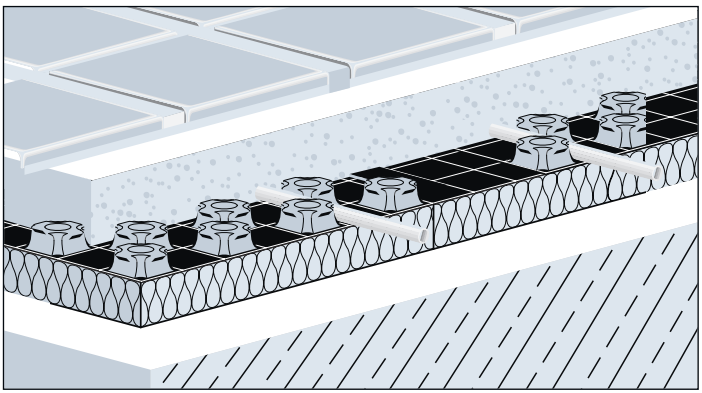

Figure 2: Fast Trak 1.3i

Installation

Required Equipment

- Uponor Edge Strip (A5091000)
- Uponor PEX piping cutter (E6081125 or E6081128)
- Utility knife
- Tape measure
- Duct tape or similar

Fast Trak 0.5 Installation

Fast Trak 0.5 features an adhesive backing for easy installation to a slab or subfloor and is designed with spaces between the knobs to ensure leveling compound spreads easily and bonds firmly with the substructure.

The graphic below illustrates a Fast Trak 0.5 installation, using an existing slab, wood subfloor or tiled floor.

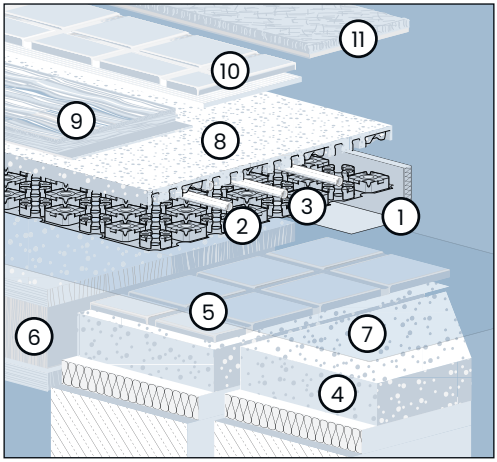

Figure 3: Fast Trak 0.5 installation applications

1. Uponor Edge Strip (A5091000)
2. Uponor Fast Trak 0.5 (A5090313)
3. Uponor 5/16" Wirsbo hePEX piping
4. Existing screed with underlying thermal insulation
5. Tiled floor
6. Timber joist floor
7. Vapor barrier (optional)
8. Self-leveling compound
9. Parquet/laminate floor with additional separating layer or adhesive
10. Tiles with tile adhesive and grout
11. Carpet with carpet adhesive

Refer to the following instructions to properly install Fast Trak 0.5.

1. Before installation, ensure the subsurface is dry, firm, and clean. Dirt, debris or dust on the subsurface will hinder adhesive adherence. Ensure the panel has a proper grip to the subsurface and the subsurface has a sufficient load-bearing capacity (use a suitable leveling compound to achieve this, if necessary).
2. Install the edge strips, making sure the polyethylene (PE) foil is laying down on the subsurface.

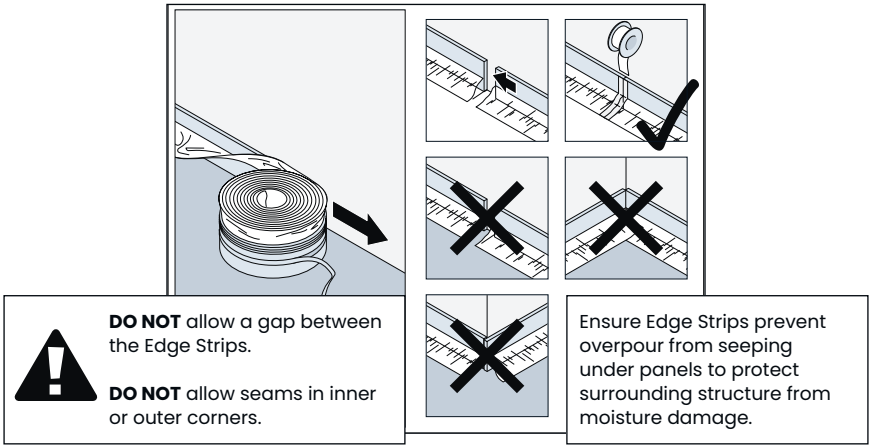

Figure 4: Install edge strips

Note: Ensure the edge strips extend from the load-bearing subsurface to the upper edge of the floor covering.

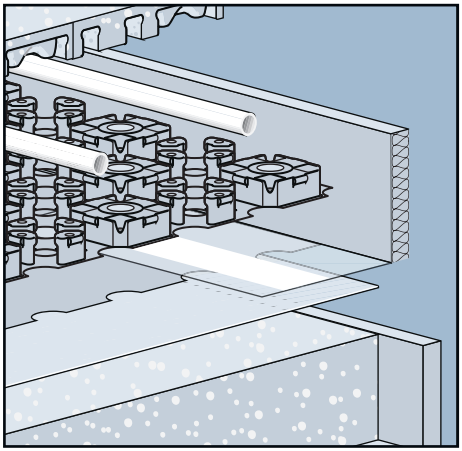

Figure 5: Proper edge strip location

3. Lay the Fast Trak 0.5 panels on the subfloor, ensuring a 2" (50mm) gap between the panel and the wall (edge strip).
4. Remove the adhesive backing to secure the panels to the floor. Ensure the panel is covering the PE foil section of the edge strip, creating a seal so no leveling compound can get behind the Edge Strip.

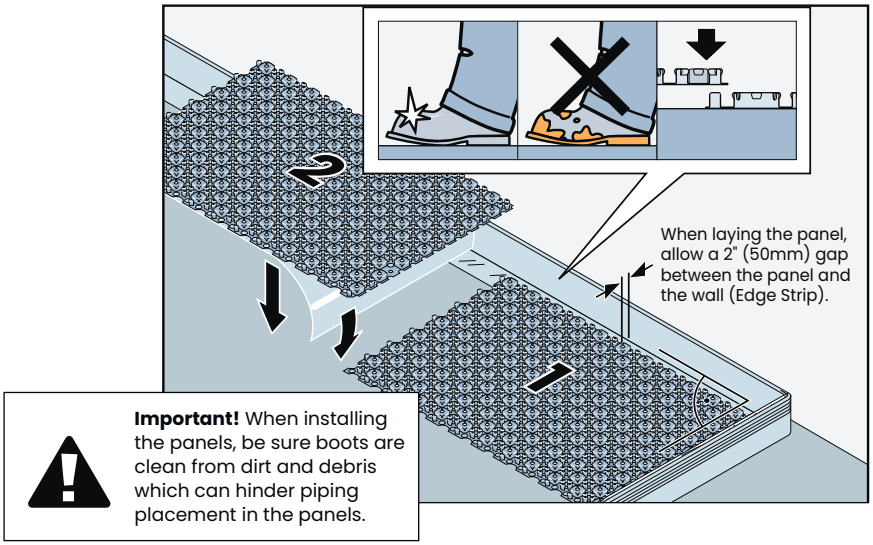

Figure 6: Install panels

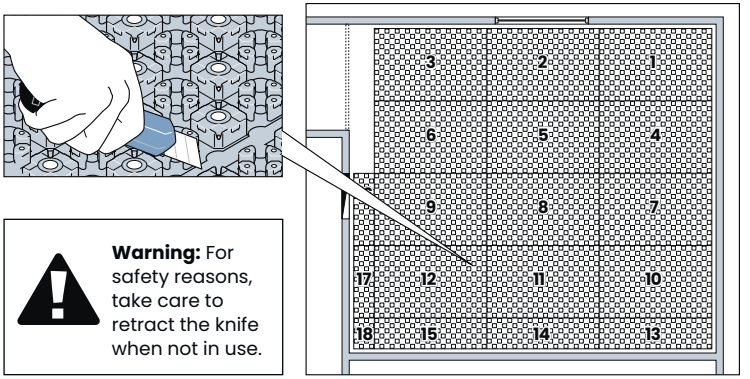

Figure 7: Fit panels to floor area

5. Use a utility knife to cut the panels to fit the flooring area.
6. Snap the piping into the panels using gentle pressure with your foot. Lay the piping from the outer wall(s) towards the inner wall(s) and mark the piping for easy identification when connecting to the manifold.

Note: Minimum bend radius for 5/16" Wirsbo hePEX piping in the Fast Trak 0.5 panel is 3" (75mm).

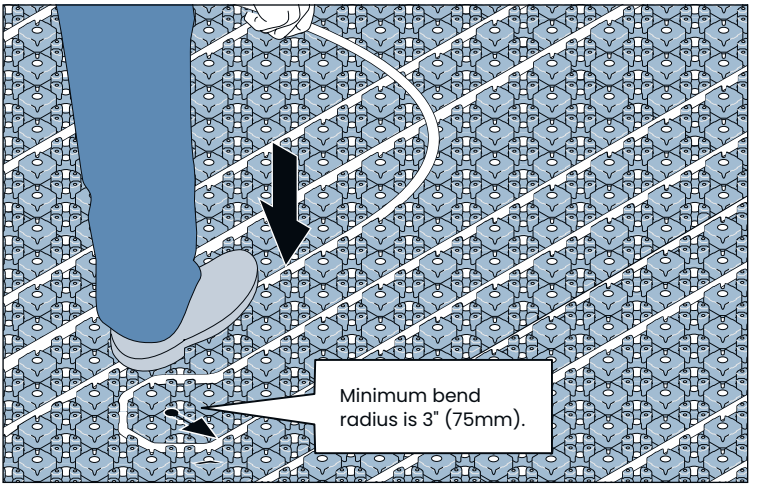

Figure 8: Install piping

7. Connect the piping to the manifold. Refer to the installation information for filling, purging, and balancing Uponor Stainless-Steel or Engineered Polymer (EP) Heating Manifolds.

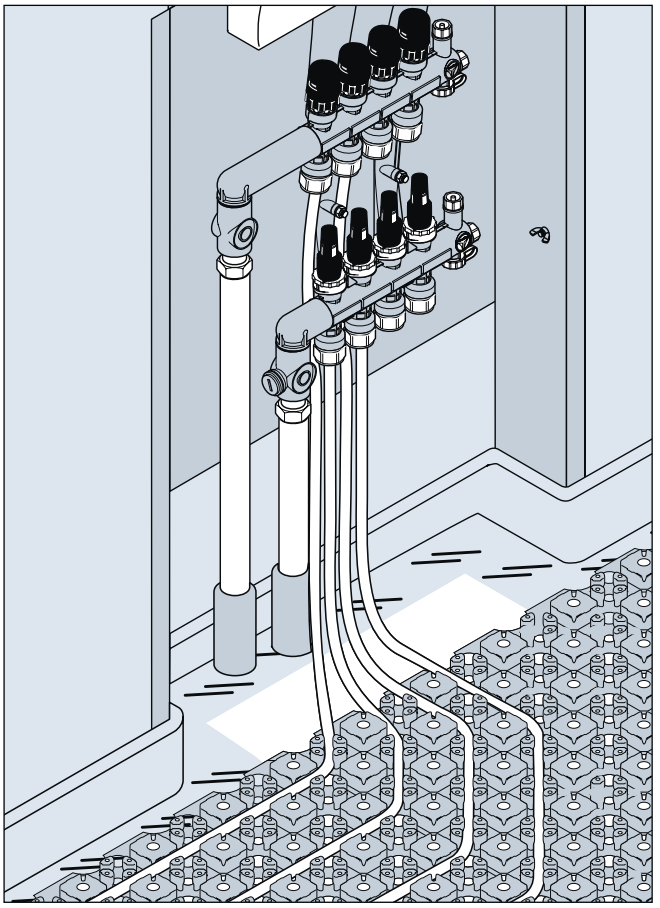

Figure 9: Connect piping to manifold

Fast Trak 1.3i Installation

Fast Trak 1.3i is slightly more than 1¼" in height and is designed for ⅜" or ½" Wirsbo hePEX piping. Fast Trak 1.3i includes insulation already in the panel, eliminating the added time and cost of installing insulation under the piping.

The graphic below illustrates a Fast Trak 1.3i installation.

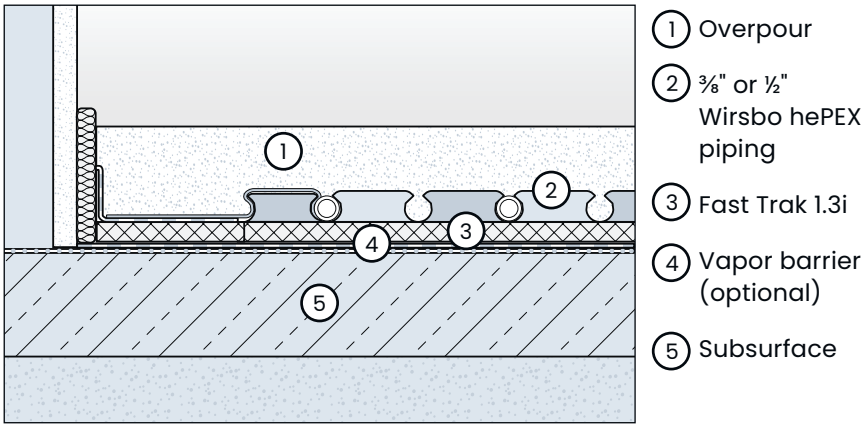

Figure 10: Fast Trak 1.3i installation application

Important! When installing Fast Trak 1.3i, refer to the following chart for maximum floor unevenness.

Length	0.33 ft. (0.1m)	3.3 ft. (1m)	13 ft. (4m)	33 ft (10m)	49 ft. (15m)
Tolerance	0.2" (5mm)	0.3" (8mm)	0.5" (12mm)	0.6" (15mm)	0.8" (20mm)

Table 1: Tolerance and length

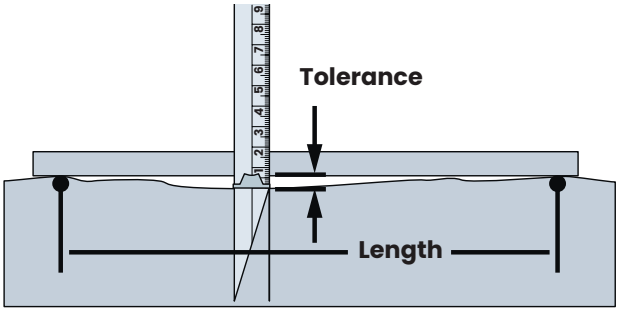

Figure 11: Tolerance and length

Refer to the following instructions to properly install Fast Trak 1.3i.

1. Install the edge strips, making sure the PE foil is not falling down. The PE foil will be folded down on top of the panel. These gaps provide pathways for the overpour to seep into the wall and floor.

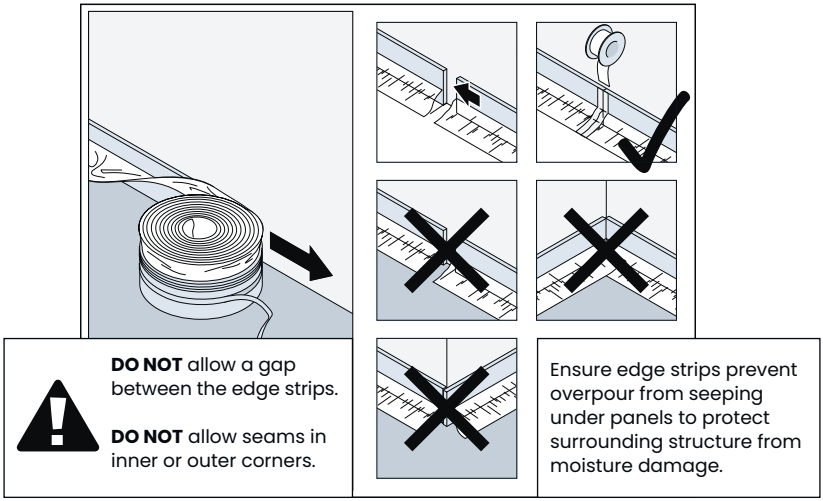

Figure 12: Install Edge Strips

2. Lay the Fast Trak 1.3i panels on the subfloor, using a utility knife to cut the panels to fit the flooring area. Note that the panels feature two edges (one along the long side of the panel and one along the short side) that allow the panels to interlock.

Warning: For safety reasons, take care to retract the knife when not in use.

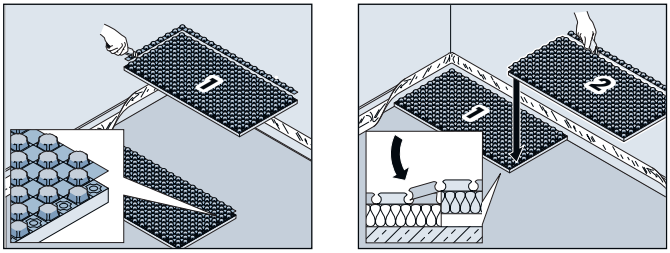

Figure 13: Install panels

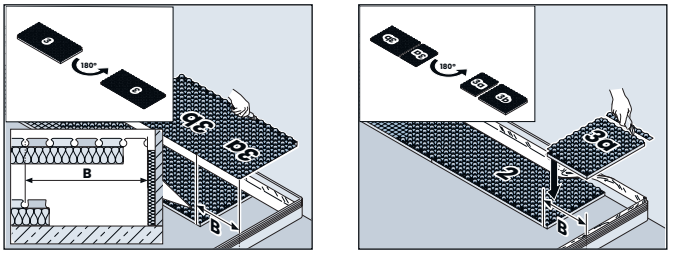

Figure 14: Fit panels to floor area

3. If a panel must be cut down to fit into a tight space, use duct tape or similar to seal the gap between the panels.

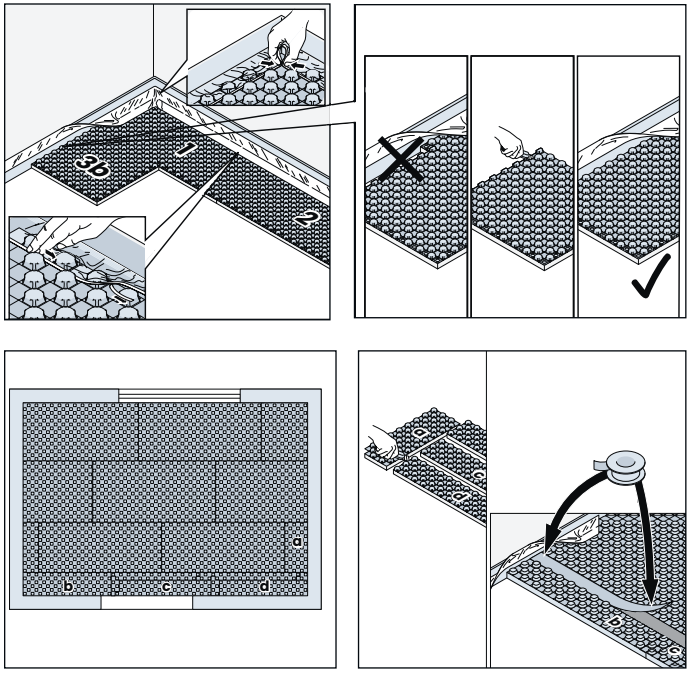

Figure 15: Use duct tape to seal gaps between panels

4. Remove the black protecting strip and adhere the PE foil to the panels. Be sure to get a good seal so no overpour material seeps under the panel. If necessary, use duct tape or similar to seal gaps.

5. Snap the piping into the panels using gentle pressure with your foot. Lay the piping from the outer wall(s) towards the inner wall(s) and mark the piping for easy identification when connecting to the manifold.

Note: Minimum bend radius for ⅜" Wirsbo hePEX piping in the Fast Trak 1.3i panel is 3" (75mm); ½" piping is 3½" (88mm).

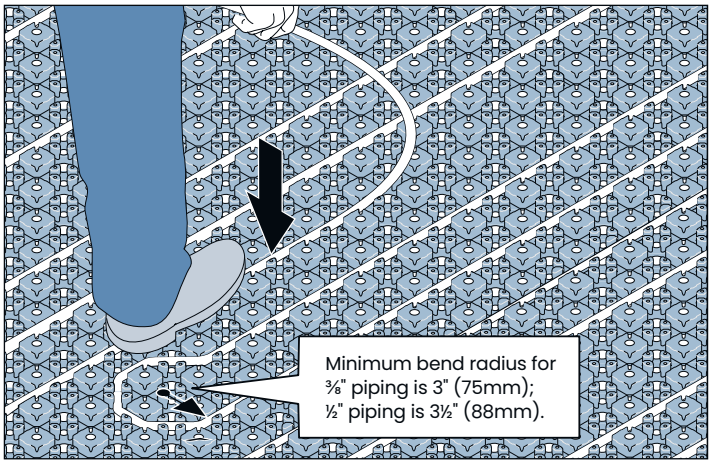

Figure 16: Install piping

6. Connect the piping to the manifold. Refer to the installation information for filling, purging, and balancing Uponor Stainless-Steel or Engineered Polymer (EP) Heating Manifolds.

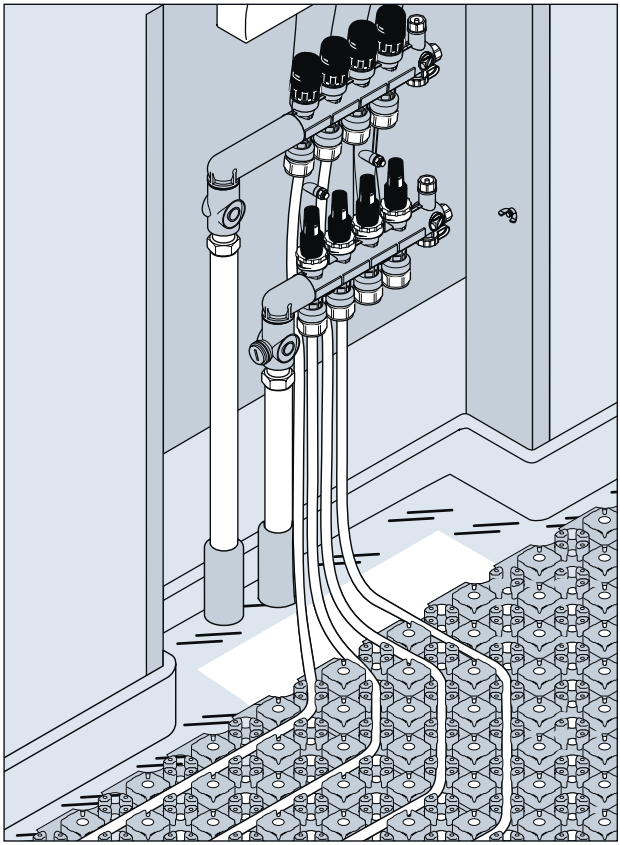

Figure 17: Connect piping to manifold

Overpour Guidelines

General Recommendations

When pouring the leveling compound or lightweight concrete, make sure to comply with local code and always follow the overpour manufacturer's guidelines to comply with load and strength requirements.

Important! Do not turn on the radiant heating system until the overpour is completely cured. Refer to the overpour manufacturer's instructions before turning the radiant heating system on to avoid cracking or damaging the overpour.

Overpour for Fast Trak 0.5

For Fast Trak 0.5, the minimum overpour can be as low as ¼" (6mm) over the panel knobs. However, it is important to check local codes which may require thicker overpour. If the piping is spaced more than 6" on center, consider a thicker overpour to avoid thermal striping.

Overpour for Fast Trak 1.3i

For Fast Trak 1.3i, the minimum overpour should be ¾" (19mm) over the panel knobs. Failure to follow the recommended ¾" guidelines risks screed cracking or thermal striping.

Recommended Overpour Products

It is important to use an overpour product that is designed especially for use with radiant floor heating systems to handle higher temperatures. Uponor recommends the following overpour products for use with Fast Trak.

- Allied Custom Gypsum AccuCrete® AccuRadiant®
- ARDEX TL WOOD™
- Hacker Industries, Inc. Firm-Fill®
- Maxxon Therma-Floor®
- United States Gypsum (USG) LEVELROCK® RH

Required Volume Per Square Foot

Refer to the tables below for required overpour volume per square foot.

Fast Trak 0.5

Volume of Pour for ¼" Overpour Above Knobs with 5/16" Piping

Piping Spacing	in³/ft²	ft³/ft²
4"	91.2	0.0528
6"	93.0	0.0538
8"	93.8	0.0543
10"	94.4	0.0546
12"	94.7	0.0548

Table 2: Fast Trak 0.5

Fast Trak 1.3i

Volume of Pour for ¾" Overpour Above Knobs with ⅜" Piping

Piping Spacing	in³/ft²	ft³/ft²
4"	190.0	0.1099
6"	192.3	0.1113
8"	193.5	0.1120
10"	194.2	0.1124
12"	194.7	0.1127

Table 4: Fast Trak 1.3i

Fast Trak 0.5

Volume of Pour for ¾" Overpour Above Knobs with 5/16" Piping

Piping Spacing	in³/ft²	ft³/ft²
4"	163.2	0.0945
6"	165.0	0.0955
8"	165.8	0.0960
10"	166.4	0.0963
12"	166.7	0.0965

Table 3: Fast Trak 0.5

Fast Trak 1.3i

Volume of Pour for ¾" Overpour Above Knobs with ½" Piping

Piping Spacing	in³/ft²	ft³/ft²
4"	186.0	0.1076
6"	189.7	0.1098
8"	191.5	0.1108
10"	192.6	0.1115
12"	193.4	0.1119

Table 5: Fast Trak 1.3i

Supply Water Temperature Charts

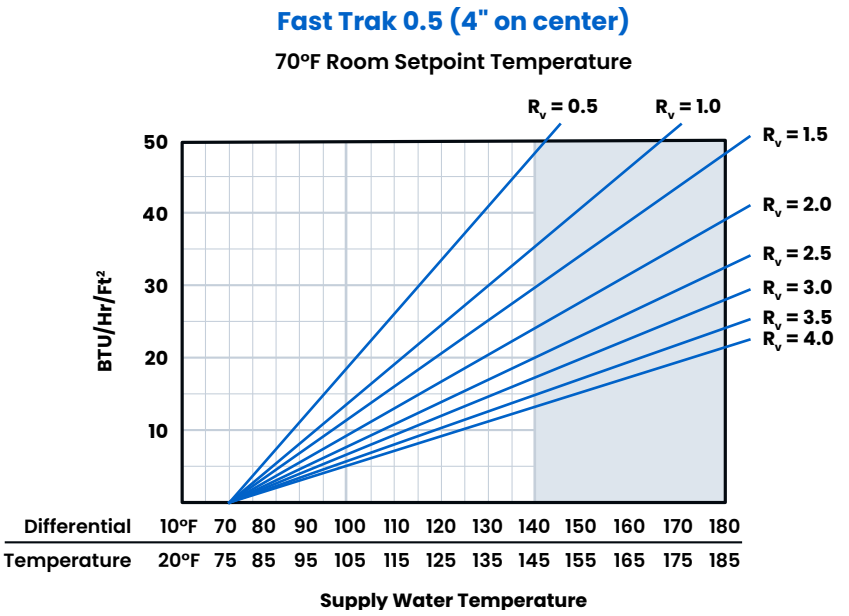

Figure 18: Fast Trak 0.5 (4" on center)

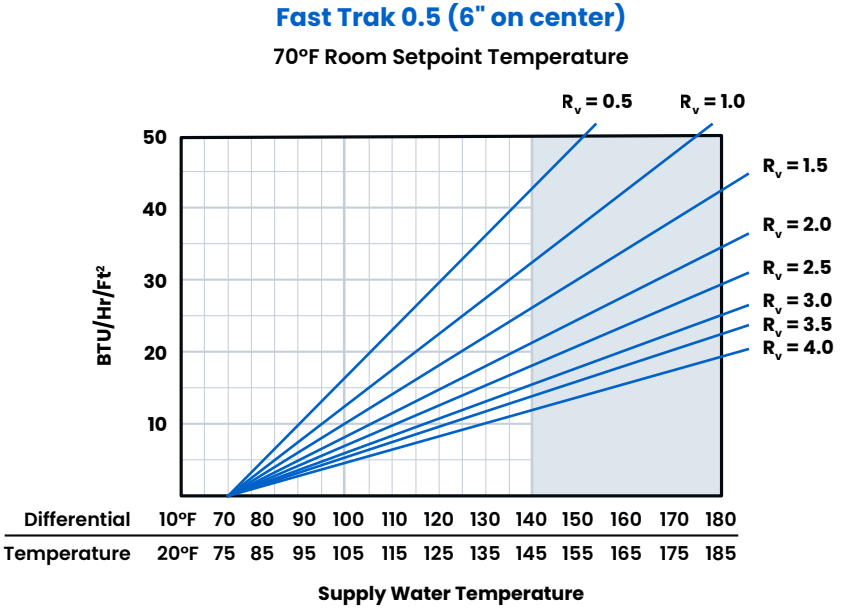

Figure 19: Fast Trak 0.5 (6" on center)

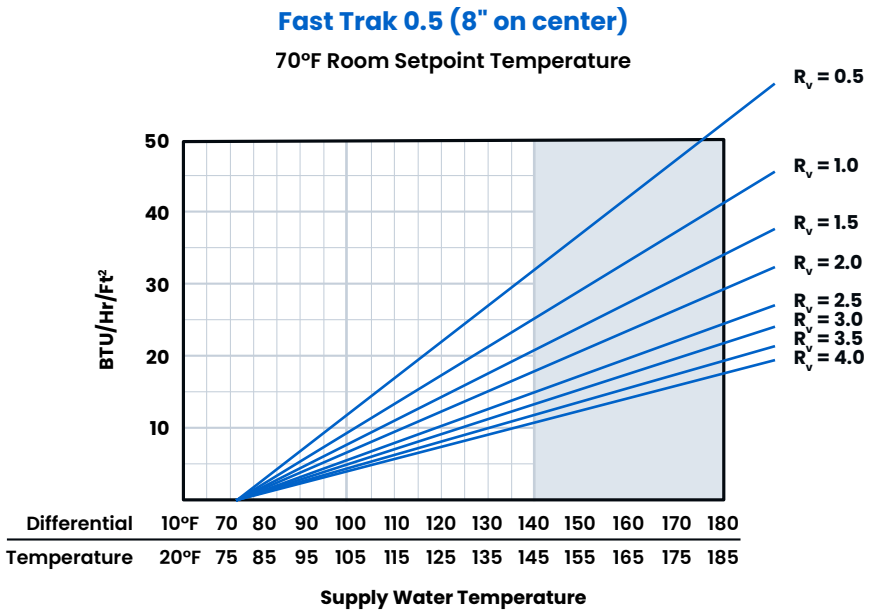

Figure 20: Fast Trak 0.5 (8" on center)

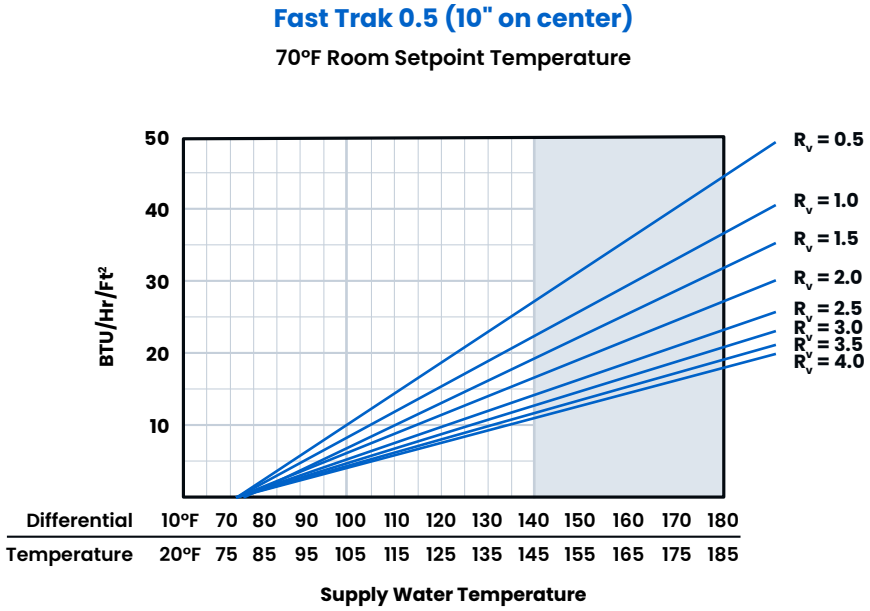

Figure 21: Fast Trak 0.5 (10" on center)

Fast Trak 0.5 (12" on center)

70°F Room Setpoint Temperature

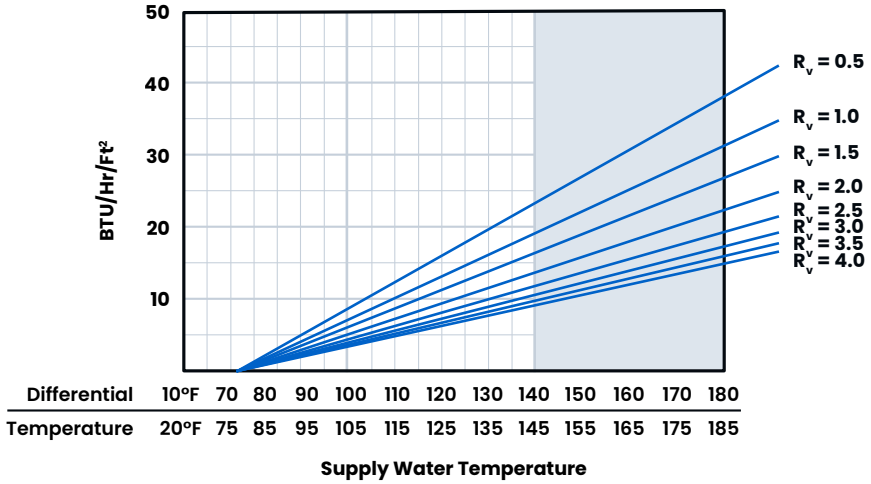

Figure 22: Fast Trak 0.5 (12" on center)

Fast Trak 1.3i (4" on center)

70°F Room Setpoint Temperature

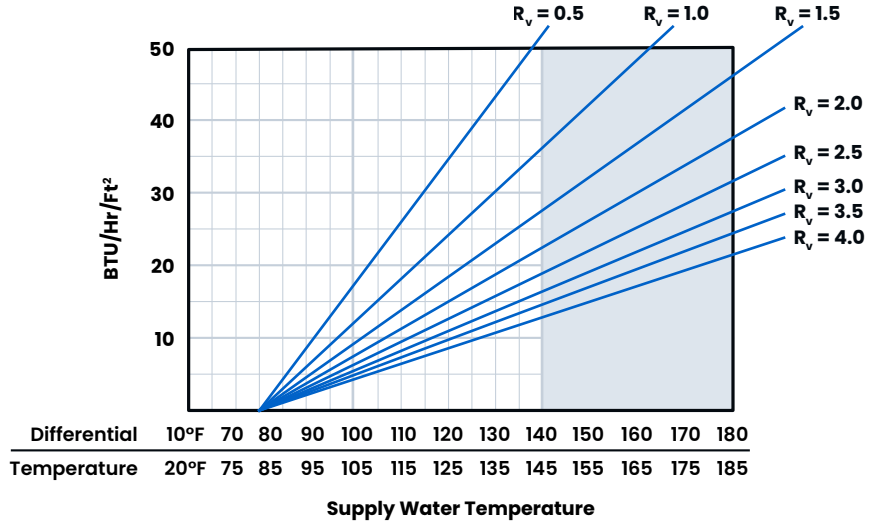

Figure 23: Fast Trak 1.3i (4" on center)

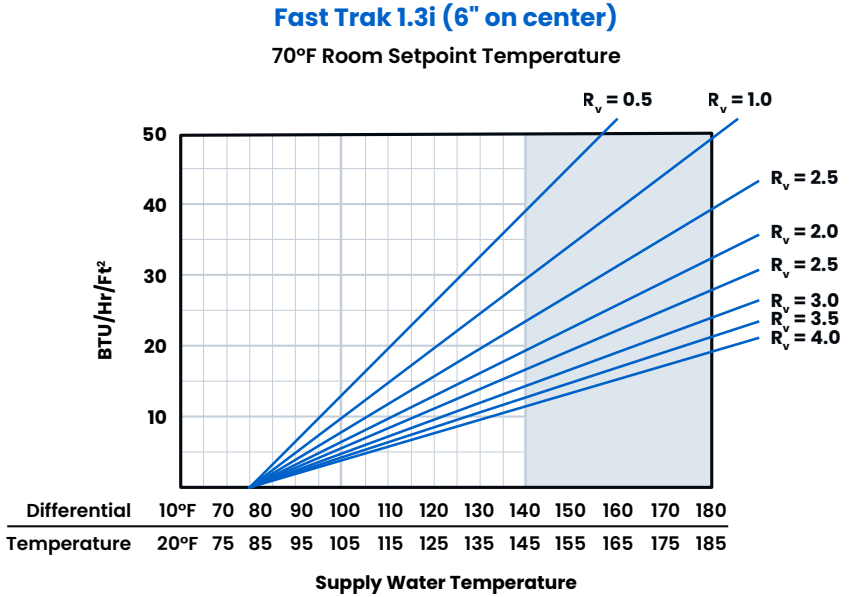

Figure 24: Fast Trak 1.3i (6" on center)

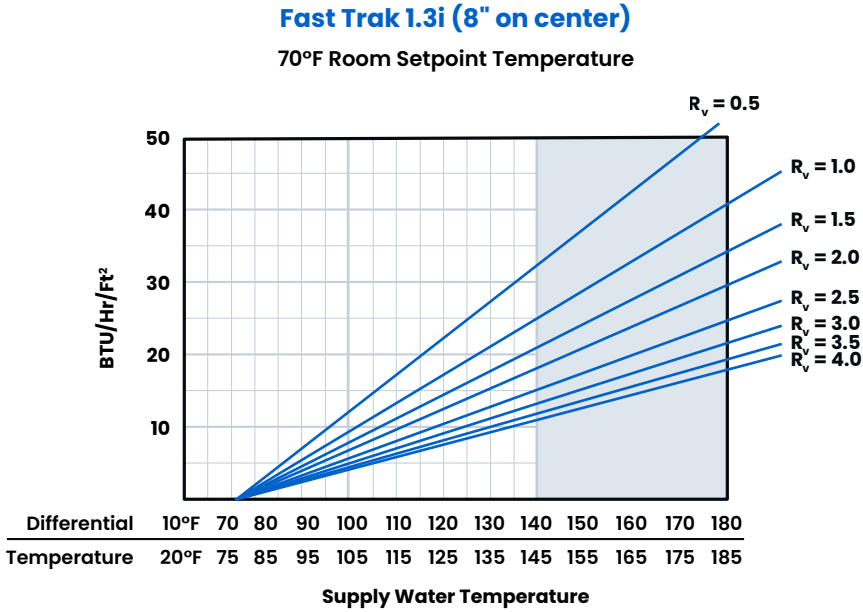

Figure 25: Fast Trak 1.3i (8" on center)

Fast Trak 1.3i (10" on center)

70°F Room Setpoint Temperature

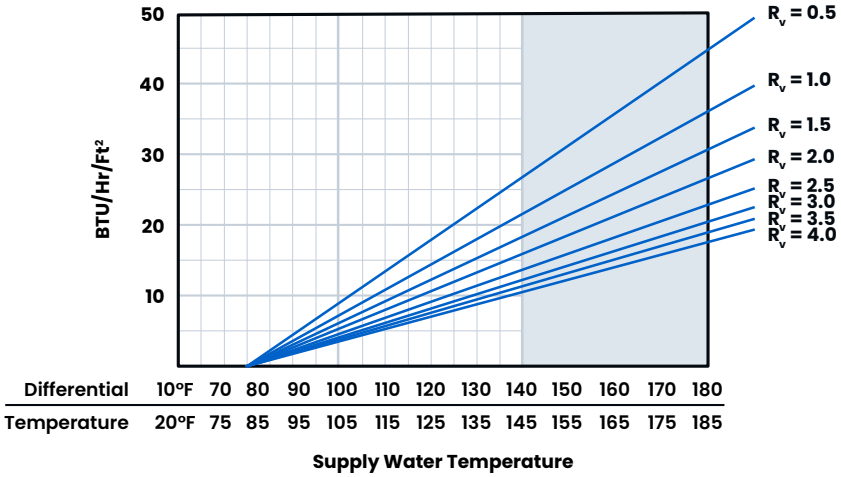

Figure 26: Fast Trak 1.3i (10" on center)

Fast Trak 1.3i (12" on center)

70°F Room Setpoint Temperature

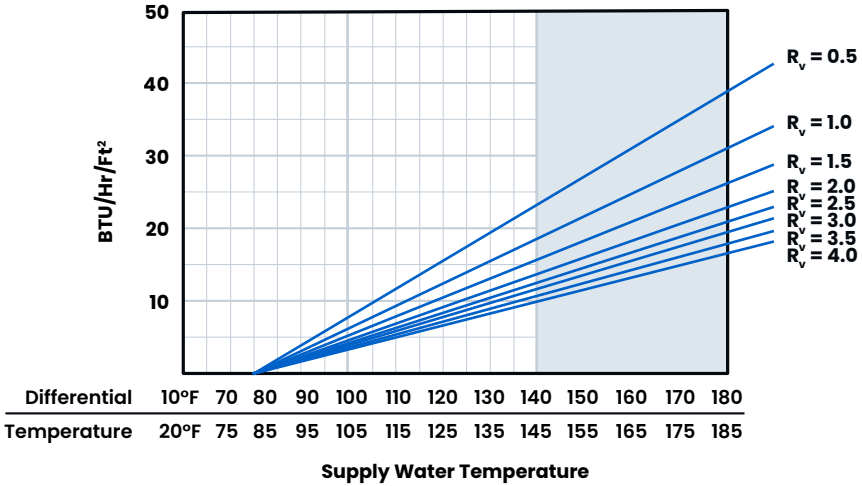

Figure 27: Fast Trak 1.3i (12" on center)

Moving
> Water

uponor

Uponor Inc.
5925 148th Street West
Apple Valley, MN 55124
USA

T 800.321.4739
F 952.891.2008

Uponor Ltd.
6510 Kennedy Road
Mississauga, ON L5T 2X4
CANADA

T 888.994.7726
F 800.638.9517

uponor.com

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