



# Uponor

RADIANT HEATING AND  
COOLING SYSTEMS  
RADIANT ROLLOUT™ MAT

INSTRUCTION SHEET

## Radiant Rollout™ Mat Installation Instructions

### Overview

The Uponor Radiant Rollout™ Mat is a custom-designed, prefabricated and pre-pressurized network of Wirsbo hePEX™ barrier tubing, providing a fast, efficient and consistent method for installing radiant heating and cooling systems in large, open-area commercial applications.

### Tools Required

- Pressure gauge
- Zip-tie cutter
- ProPEX® Expander Tool (if ProPEX connections are necessary)
- ¼" soil stakes, nylon zip ties, Fixing Wire or PEX Foam Staples for fastening the mat to the surface

### Important Notes to Review Prior to Installation

1. Use standard PEX installation techniques to install the mats unless otherwise noted herein.
2. Do not use adhesive tape on the mat tubing or leave the mat exposed to direct sunlight or UV light for an extended period of time.
3. Do not expose the mat to harmful chemicals, excessive heat, sharp objects, previously unapproved concrete additives or any other potentially harmful situations.

### Installation Instructions

Refer to the following instructions to properly install the Radiant Rollout Mat.

1. Uponor ships the Radiant Rollout Mat with the reverse/return header assembly already pre-pressurized from the factory. Once the mats arrive at the jobsite, check each mat for proper pressure by using a pressure gauge at the Schraeder® valve.

**Note:** If a mat does not contain air pressure, re-pressurize with air and use soapy water to locate leak(s). Repair leaks with Uponor's ProPEX engineered polymer (EP) fittings as needed. For additional parts, contact your distributor or Uponor sales representative.

2. Mats arrive from the factory with labels that match mat numbers on the Uponor-supplied CAD layout drawing. Determine the mat install locations as specified on the drawing.
3. If installing a mat with the optional reverse/return header, align the reverse/return header section of the mat assembly with the area specified.
4. Cut the **BLACK** nylon zip ties that contain the mat roll.

**Note:** Do not cut the white zip ties. They secure the loops of the mat to the support strips.



5. Anchor the reverse/return header assembly in the desired location using one of the following fastening techniques:

- ¼" soil stakes to grade
- Nylon zip ties to wire mesh or rebar
- Wire twist ties to wire mesh or rebar
- PEX foam staples to under-slab insulation

**Note:** Do not place the reverse/return header assembly in an area of the slab where a control or expansion joint will be present. If installing in slab on grade, dig a shallow trench to place the header assembly in the grade below the slab.

**Warning:** Do not step directly on the header assembly as this will cause damage.

6. After anchoring the reverse/return header assembly, roll out the mat.
7. Straighten the mat by pulling each individual loop tight from the end opposite the reverse/return header.

8. Once the mat loops are straight and in the desired location, anchor the mat using one of the following fastening techniques:

- ¼" soil stakes to grade; minimum recommended anchoring requires mat loops pulled tight and secured in firm soil with stakes through provided holes in support strips
- Nylon zip ties to wire mesh or rebar; secure at a minimum of 36" intervals
- Fixing Wire (A7031000) to wire mesh or rebar; secure at a minimum of 36" intervals
- PEX Foam Staples (A7015050 or A7015075) to under-slab foam insulation; secure at a minimum of 36" intervals

9. If an adjustment is needed, cut and connect the tubing using Uponor's ProPEX EP fittings. For additional parts, contact your distributor or Uponor sales representative.

**Important:** Keeping mat loop lengths equal will ensure balanced flow through the entire mat assembly.

10. When encountering obstacles, such as pylons, support posts, trench drains, etc., cut the support strips in the mat and place the loops on either side of the obstacles.
11. Pressurize the system in accordance with local code requirements or to a minimum of 60 psi for 24 hours. Be sure to keep the mats pressurized throughout the slab-pouring process.
12. Connect the supply and return lines to the distribution piping or to the appropriate wall-mounted manifold assembly.
13. Because the mats are manufactured with equal loop lengths, individual loop balancing is not required. However, system balancing will be required at the wall-mounted manifold or within the distribution piping to ensure equal flow through the entire radiant system.



**Uponor, Inc.**  
5925 148th Street West  
Apple Valley, MN 55124 USA  
Tel: 800.321.4739  
Fax: 952.891.2008

**Uponor Ltd.**  
2000 Argentia Rd., Plaza 1, Ste. 200  
Mississauga, ON L5N 1W1 CANADA  
Tel: 888.994.7726  
Fax: 800.638.9517

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[www.uponorpro.com](http://www.uponorpro.com)