

## **uponor**

COMMERCIAL PIPING SYSTEMS

PRE-INSULATED PEX PIPE

**SELL SHEET** 

# **Uponor Pre-insulated PEX Pipe for Plumbing, Heating and Cooling applications**

Uponor's comprehensive pre-insulated PEX pipe offering meets ASHRAE 90.1-2013 energy-code requirements with insulation thicknesses up to  $2^{\text{\tiny{TM}}}$ . The offering features both Uponor AquaPEX® pipe for plumbing applications as well as Wirsbo hePEXTM pipe for hydronic heating and cooling applications.

#### **Features**

- Pre-insulated Uponor AquaPEX pipe in ½" through 2" configurations with 1" and 1½" insulation
- Pre-insulated Wirsbo hePEX pipe in ½" through 2" configurations with ½", 1", 1½" and 2" insulation
- Manufactured seams in the insulation that run the entire length of the coil
- Complies with ASHRAE 90.1-2013 Energy Code and the 2012 International Energy Conservation Code (IECC)
- Available in coil lengths of 50, 75 or 100 ft.
- 25-year limited warranty on PEX piping\*

#### **Product Offering**

Part No.	Part Description
F6150500	1/2" Pre-insulated Uponor AquaPEX with 1" insulation, 100-ft. coil
F6150750	3/4" Pre-insulated Uponor AquaPEX with 1" insulation, 100-ft. coil
F6151000	1" Pre-insulated Uponor AquaPEX with 1" insulation, 100-ft. coil
F6151250	1¼" Pre-insulated Uponor AquaPEX with 1" insulation, 100-ft. coil
F6161500	1½" Pre-insulated Uponor AquaPEX with 1½" insulation, 75-ft. coil
F6162000	2" Pre-insulated Uponor AquaPEX with 1½" insulation, 75-ft. coil
A6140500	½" Pre-insulated Wirsbo hePEX with ½" insulation, 100-ft. coil
A6140750	¾" Pre-insulated Wirsbo hePEX with ½" insulation, 100-ft. coil
A6141000	1" Pre-insulated Wirsbo hePEX with ½" insulation, 100-ft. coil
A6141250	1¼" Pre-insulated Wirsbo hePEX with ½" insulation, 100-ft. coil
A6141500	1½" Pre-insulated Wirsbo hePEX with ½" insulation, 100-ft. coil
A6142000	2" Pre-insulated Wirsbo hePEX with $\frac{1}{2}$ " insulation, 100-ft. coil
A6150500	½" Pre-insulated Wirsbo hePEX with 1" insulation, 100-ft. coil
A6150750	¾" Pre-insulated Wirsbo hePEX with 1" insulation, 100-ft. coil
A6151000	1" Pre-insulated Wirsbo hePEX with 1" insulation, 100-ft. coil
A6151250	1¼" Pre-insulated Wirsbo hePEX with 1" insulation, 100-ft. coil
A6161500	1½" Pre-insulated Wirsbo hePEX with 1½" insulation, 75-ft. coil
A6162000	2" Pre-insulated Wirsbo hePEX with 1½" insulation, 75-ft. coil
A6160500	1/2" Pre-insulated Wirsbo hePEX with $1/2$ " insulation, 100-ft. coil
A6160750	$\frac{3}{4}$ " Pre-insulated Wirsbo hePEX with $1\frac{1}{2}$ " insulation, 100-ft. coil
A6161000	1" Pre-insulated Wirsbo hePEX with 1½" insulation, 100-ft. coil
A6161250	1¼" Pre-insulated Wirsbo hePEX with 1½" insulation, 100-ft. coil
A6171500	11/2" Pre-insulated Wirsbo hePEX with 2" insulation, 50-ft. coil
A6172000	2" Pre-insulated Wirsbo hePEX with 2" insulation, 50-ft. coil

<sup>\*</sup>See www.uponorpro.com/warranties for details.

#### **Frequently Asked Questions**

## How is this offering different from the current Uponor Pre-insulated AquaPEX product?

This offering includes the introduction of oxygen-barrier Wirsbo hePEX pipe and also provides additional insulation thicknesses to meet ASHRAE 90.1-2013 energy-code requirements.

#### What type of insulation covers the pipe?

The insulation is a polyethylene (PE) foam insulation which is appropriate for direct-burial applications.

#### Are there any considerations when burying the pipe?

Yes, you must ensure the product is not within a high-water-table area as water will compromise the performance of the insulation. Additionally, for buried lines above the water table, it is important to add 3" to 5" of clean fill (such as sand) to protect the insulation prior to backfilling. Uponor recommends using a minimum 1" insulation thickness and ensure all seams and butt joints are properly sealed with an approved contact adhesive. For optimum performance, encase the lines in conduit to help protect the insulation from groundwater contamination.

#### What is the thermal conductivity of the insulation?

The PE-foam insulation has a thermal conductivity of 0.25 Btu.in/sq.ft.h.deqF.

### Does the thermal conductivity vary depending on the thickness of the insulation?

No, all sizes of insulation have a thermal conductivity of 0.25 Btu.in/sq.ft.h.degF.

#### What's the bend radius?

The bend radius is the same as Uponor AquaPEX, which is 6 times the outside diameter of the tubing.

#### Where can I use the product?

Pre-insulated AquaPEX can be used in all areas of a potable-water plumbing system (or a hydronic piping or radiant heating/cooling system where ferrous corrodible components are isolated from the piping). Pre-insulated Wirsbo hePEX can be used in all areas of a hydronic piping, radiant heating/cooling and potable-water plumbing system.

## Are there any accessories or guidelines for insulating connections (tees, ells, etc.) in conjunction with the straight pipe?

The insulation can be pulled over the expanded ProPEX® Ring leaving only the fitting body uninsulated. Uponor does not offer insulation kits for the fittings; however, insulation kits are available in the industry if needed for your specific application.

#### **R-value and Heat Loss Charts**

Pre-insulated PEX with ½" insulation				
Tubing Size	Insulation Thickness	R-value	Heat Loss at 70°F∆T	
1/2"	0.6 (15mm)	3.9	7.4 Btu/(hr • ft)	
3/4"	0.6 (15mm)	3.6	9.0 Btu/(hr • ft)	
1"	0.6 (15mm)	3.4	10.6 Btu/(hr • ft)	
1¼"	0.6 (15mm)	3.3	12.1 Btu/(hr • ft)	
1½"	0.6 (15mm)	3.2	13.6 Btu/(hr • ft)	
2"	0.6 (15mm)	3.1	16.5 Btu/(hr • ft)	

Pre-insulated PEX with 1" insulation				
Tubing Size	Insulation Thickness	R-value	Heat Loss at 70°F ∆ T	
1/2"	1.0 (25mm)	7.5	6.3 Btu/(hr • ft)	
3/4"	1.1 (28mm)	7.9	7.1 Btu/(hr • ft)	
1"	1.0 (25mm)	6.4	8.8 Btu/(hr • ft)	
1¼"	1.0 (25mm)	6.1	10.0 Btu/(hr • ft)	
1½"	1.1 (27mm)	6.5	10.6 Btu/(hr • ft)	
2"	1.0 (25mm)	5.6	13.4 Btu/(hr • ft)	

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Pr	Pre-insulated PEX with 1½" insulation				
Tubing Size	Insulation Thickness	R-value	Heat Loss at 70°F∆T		
1/2"	1.6 (40mm)	13.8	4.0 Btu/(hr • ft)		
3/4"	1.6 (40mm)	12.5	4.9 Btu/(hr ⋅ ft)		
1"	1.6 (40mm)	11.6	5.7 Btu/(hr • ft)		
1¼"	1.6 (40mm)	11.0	6.4 Btu/(hr • ft)		
1½"	1.7 (42mm)	11.2	7.0 Btu/(hr • ft)		
2"	1.6 (40m)	9.9	8.6 Btu/(hr • ft)		

Pre-insulated PEX with 2" insulation				
Tubing Size	Insulation Thickness	R-value	Heat Loss at 70°F ∆ T	
1½"	2.1 (54mm)	15.4	5.2 Btu/(hr • ft)	
2"	2.0 (52mm)	13.7	6.4 Btu/(hr • ft)	