



PLUMBING PRODUCT LISTING PROGRAM

Customer: UPONOR, INC.
Class: Fire Protection – Pipe and Fittings
Location: Apple Valley, Minnesota

Listing No. P321
Project No. P321-4
Effective Date: May 21, 2015
Last Revised Sept 19, 2022
Date:
Expires: <N/A>

Standards: ANSI/CAN/UL 1821 “Thermoplastic Sprinkler Pipe and Fittings for Fire Protection Service

Product: UPONOR AquaSAFE™ Pipe and Fitting System

Component:	Nominal Pipe Size:
UPONOR AquaPEX™ PEX piping (white)	3/4", 1", 1 1/4" 19, 25, 32 mm
ProPEX™ EP Coupling	3/4", 1", 1 1/4" 19, 25, 32 mm
ProPEX™ EP Elbow	3/4", 1", 1 1/4" 19, 25, 32 mm
ProPEX™ EP Tee	3/4", 1", 1 1/4" 19, 25, 32 mm
ProPEX™ Brass Sweat Adapter	3/4", 1", 1 1/4" 19, 25, 32 mm
ProPEX™ Brass Male Thread Adapter	3/4", 1", 1 1/4" 19, 25, 32 mm
ProPEX™ Brass Female Thread Adapter	3/4", 1", 1 1/4" 19, 25, 32 mm
ProPEX™ Fire Sprinkler Adapter	3/4", 1" 19, 25 mm
ProPEX™ EP Reducing Coupling	1" x 3/4", 1-1/4" x 3/4", 1-1/4" x 1" 25 x 19, 32 x 19, 32 x 25 mm
ProPEX™ EP Reducing Tee	3/4" x 3/4" x 1", 1" x 3/4" x 3/4", 1" x 3/4" x 1" 19 x 19 x 25, 25 x 19 x 19, 25 x 19 x 25 mm
	1" x 1" x 3/4", 1-1/4" x 1" x 3/4", 1-1/4" x 1" x 1" 25 x 25 x 19, 32 x 25 x 19, 32 x 25 x 25 mm
	1-1/4" x 1-1/4" x 3/4", 1-1/4" x 1-1/4" x 1" 32 x 32 x 19, 32 x 32 x 25 mm

Sprinklers: All automatic sprinklers must be listed by an approved agency to ANSI/UL 1626, “Residential Sprinklers for Fire Protection Service” for use in the noted assemblies of this listing.



Marking(s): All PEX pipe, connectors, and other accessories (if sufficient space is available) shall be permanently marked with the following content where visible after installation:

- Manufacturers name or trademark
- Model Name
- Standard: UL 1821
- Nominal Size
- Manufacturing Traceability Label - Production date code
- QAI Logo with 'c' and 'us' indicator



APPROVED INSTALLATIONS

Assembly 1: Exposed Wood Joist Ceiling Assemblies

UPONOR AquaSAFE™ can be installed and left exposed in wood joist ceiling assemblies (unfinished basements) where the following conditions are met:

1. Joists are of dimensional lumber, steel or engineered wood including wood i-joist. Open Joists of any type are NOT ALLOWED.
2. Joist are of depths from 6 – 16 inches (152 – 204 mm).
3. Joist are of spacing from 12 – 24 inches (305 – 610 mm) on center.
4. Joists can be exposed after installation.
5. Minimum ceiling height 8' (2.44 m).
6. Metal pipe hangers spaced at maximum 24 inches (610 mm) on center when piping is installed parallel with joists. For perpendicular runs, pipe may be supported by the joists at a maximum of 24 inches (610 mm) on center.
7. All fittings on main or branch line are supported within 6" of the fittings.
8. Listed residential automatic sprinklers of maximum activation temperature rating of 155°F (68°C).

Assembly 2: Exposed Finished Ceiling Assemblies

UPONOR AquaSAFE™ can be installed exposed under finished ceiling assemblies where the following conditions are met:

1. Ceiling is finished with pipe attached directly to the underside of the ceiling.
2. Minimum ceiling height 8 ft (2.44 m).
3. Metal pipe hangers spaced at maximum 24 inches (610 mm) on center are used.
4. All fittings on main or branch line are supported within 6" of the fittings.
5. Listed residential automatic sprinklers of maximum activation temperature rating of 155°F (68°C).



Assembly 3: Horizontal Sidewall Sprinkler Installation

1. Sidewall sprinkler heads are mounted within 12 inches (305 mm) of the ceiling.
2. Sprinkler heads are spaced a maximum of 14 ft (4.27 m).
3. The sidewall is protected with a minimum ½ inches (12 mm) gypsum sheathing.
4. Minimum ceiling height 8 ft (2.44 m).
5. Metal pipe hangers spaced at maximum 24 inches (610 mm) on center are used.
6. All fittings on main or branch line are supported within 6 inches (152 mm) of the fittings.
7. Listed residential automatic sprinklers of maximum activation temperature rating of 155°F (68°C).

Assembly 4: Unprotected Mid-wall or Corner Riser

1. Exposed vertical riser shall require a sprinkler installed within 12 inches (305 mm) out and 12 inches (305 mm) over from the riser, minimum 4 inches (102 mm) from adjacent walls.
2. The next sprinkler shall be within 8 ft (2.44 m) of the riser sprinkler head. Following sprinklers are to be spaced at maximum 16 ft (4.88 m).
3. Minimum ceiling height 8 ft (2.44 m).
4. Metal pipe hangers spaced at maximum 24 inches (610 mm) on center when piping is installed parallel with joists. For perpendicular runs, pipe may be supported by the joists at a maximum of 24 inches (610 mm) on center.
5. Metal pipe hangers spaced at maximum 48 inches (1220 mm) on center for the vertical riser.
6. All fittings on main or branch line are supported within 6 inches (152 mm) of the fittings.
7. Listed residential automatic sprinklers of maximum activation temperature rating of 155°F (68°C).

PEX pipe and fittings are not intended for use in areas where the maximum ambient temperature exceeds 120°F. If the ambient temperature is expected to exceed this limitation, refer to the Installation and Design Manual for additional information on methods to reduce the pipe exposure temperatures.

This system is not intended for outdoor application.

Installation
and Design
Manual:

Special installation and design criteria relative to pipe-hanger spacing, piping and sprinkler restraint, sprinkler temperature rating, piping location, testing location, testing procedures and friction loss characteristics are specified in the UPONOR AquaSAFE™ System Installation Guide (dated July 2022).

Installation in accordance with ANSI/NFPA 13D “Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes” is required.

Approved for use in areas governed by the International Residential Code (IRC) 2021 / 2018 / 2015.



Note: *These products are subjected to limitations as specified above and must be installed in accordance with the manufacturers' instructions. Authorities having jurisdiction should be consulted regarding allowable applications. See manufacturer's listings for other standards listed under QAI certification programs.*

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