PLUMBING PRODUCTS LISTING PROGRAM

<u>Class:</u> <u>Fire Protection – Pipe and Fittings</u>

| Customer: | UPONOR, INC. | |
|-----------------|--|--|
| Location: | Apple Valley, Minnesota | |
| Listing No. | P321-4 | |
| Effective Date: | May 21, 2015 | |
| Last Revised: | Feb 4, 2021 | |
| Expires: | No Expiration | |
| Website: | <u>www.uponor-usa.com</u> | |
| Product: | UPONOR AquaSAFE™ Pipe and Fitting System | |
| Standard(s): | UL 1821 "Thermoplastic Sprinkler Pipe and Fittings for Fire Protection Service". | |

ULC/ORD C199P "Combustible Piping for Sprinkler Systems"

| Component(s): | 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 | ¾", 1", 1 ¼" 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 | ¾", 1" 19, 25 mm |
| | ProPEX™ EP Reducing Coupling | 1" x ¾", 1-1/4" x ¾", 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. | |
| Maximum System | 130 psi | |

System Pressure:

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; ULC/ORD 199P
- Nominal Size
- QAI Logo with 'c' and 'us' indicator
- Manufacturing Traceability Label Production date code

Limitations: Installation in accordance with ANSI/NFPA 13D "Installation of Sprinkler Systems in Oneand Two-Family Dwellings and Manufactured Homes" is required.

APPROVED INSTALLATIONS

Assembly 1: Exposed Wood Joist Ceiling Assemblies

UPONOR AquaSAFE[™] can be installed and left exposed in wood joist ceiling assemblies where the following conditions are met:

- 1. Joists are of dimensional lumber, engineered wood and wood I-joist
- 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. Metal pipe hangers spaced at maximum 24 inches (610 mm) on center are used.
- 6. Listed residential automatic sprinklers of maximum activation temperature rating of 155°F (68°C).

Assembly 2: Exposed Finished Ceiling Assemblies

UPONOR AquaSAFE $^{\text{TM}}$ can be installed exposed across finished ceiling assemblies where the following conditions are met:

- 1. Ceiling is finished with one of the following approved membranes:
 - i. Minimum 3/8 inch (9.5 mm) thickness code complying gypsum wallboard or;
 - Suspended membrane ceiling with lay-in panels or tiles having a minimum weight of 0.35 lb/ft²(1.76 kg/m²) when installed with metallic support grids, or;
 - iii. ¹/₂ inch (13 mm) code complying plywood or solid sheathing.
- 2. Metal pipe hangers spaced at maximum 24 inches (610 mm) on center are used.
- 3. 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.

InstallationSpecial 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 May 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.

The materials, products or systems listed herein have been qualified to bear the QAI Listing Mark under the conditions stated with each Listing. Only those products bearing the QAI Listing Mark are considered to be listed by QAI.

No warrantee is expressed or implied, and no guarantee is provided that any jurisdictional authority will accept the Listing found herein. The appropriate authorities should be contacted regarding the acceptability of any given Listing.

Visit the QAI Online Listing Directory located at <u>www.qai.org</u> for the most up to date version of this Listing and to validate that this QAI Listing is active.

Questions regarding this listing may be directed to <u>info@qai.org</u>. Please include the listing number in the request.
