



CSI: DIVISION: 22 00 00—PLUMBING  
Section: 22 11 16—Domestic Water Piping

DIVISION: 23 00 00—HEATING, VENTILATING AND AIR CONDITIONING (HVAC)  
Section: 23 21 13—Hydronic Piping

### Product certification system:

The ICC-ES product certification system includes testing samples taken from the market or supplier's stock, or a combination of both, to verify compliance with applicable codes and standards. The system also involves factory inspections, and assessment and surveillance of the supplier's quality system.

Products: STREAM33 White PEX-a, Red PEX-a, Blue PEX-a and Stream33 oxygen barrier tubing

Listee: Stream33 Products, LLC  
2620 Ridgewood Road  
Akron, Ohio 44313  
[www.stream33.com](http://www.stream33.com)

### Compliance with the following codes:

2024, 2021, 2018, 2015, 2012 and 2009 *International Plumbing Code*® (IPC)  
2024, 2021, 2018, 2015, 2012 and 2009 *International Residential Code*® (IRC)  
2024, 2021, 2018, 2015, 2012 and 2009 *International Mechanical Code*® (IMC)  
2024, 2021, 2018, 2015, 2012 and 2009 *Uniform Plumbing Code*® (UPC)\*  
2024, 2021, 2018, 2015, 2012 and 2009 *Uniform Mechanical Code*® (UMC)\*  
2022, 2019, 2016, 2013 and 2010 *California Plumbing Code* (CPC)  
2022, 2019, 2016, 2013 and 2010 *California Mechanical Code* (CMC)  
2023, 2020, 2017 *City of Los Angeles Plumbing Code*  
2023, 2020, 2017 *City of Los Angeles Mechanical Code*  
2023, 2021, 2017 and 2007 *Code of Massachusetts Regulation 248 CMR 10.00: Uniform State Plumbing Code*  
2023, 2021, 2017 *Massachusetts State Building Code 780 CMR Ninth Edition: Chapter 28*  
2024, 2021, 2018 and 2015 *Uniform Solar, Hydronics and Geothermal Code*® (USHGC)\*

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### Compliance with the following standards:

ASTM F876-2024, Specification for Cross-linked Polyethylene (PEX) Tubing  
ASTM F877-2024, Specification for Cross-linked Polyethylene (PEX) Plastic Hot and Cold Water Distribution Systems  
ASTM E84-2023d, Standard Test Method for Surface Burning Characteristics of Building Materials

ULC S102-2018, Standard Method of Test for Surface Burning Characteristics of Building Materials and Assemblies  
NSF/ANSI 14-2023, Plastic Piping System Components and Related Materials  
NSF/ANSI/CAN 61-2023, Drinking Water System Components – Health Effects  
ICC-ES LC1004-2009 (Editorially revised June 2010), PMG Criteria for PEX, PEX-AL-PEX and PP-AL-PP Piping, Tubing and Fittings Used in Radiant Heating and Water Supply Systems

**Identification:**

**Tubing:** The tubing must be marked at a minimum intervals of 5 feet (1524 mm) with the following: Stream33 company name, product name, nominal tube size, material designation, potable water designation (when applicable), standard dimension ratio (SDR9), temperature and pressure ratings, ASTM designation, production code, and the ICC-ES PMG listing mark.

**Installation:**

Stream33 tubing must be installed in accordance with the manufacturer's published installation instructions, the applicable codes and this listing.

Additional fittings are available that Stream33 recommends for use with the PEX tubing in potable water applications (such as ASTM F1960, ASTM F1807, ASTM F2080 and ASTM F2159).

**Water Distribution:** Horizontally-laid pipe must be secured in such a manner that temperature-induced expansion and contraction are accommodated. In jurisdictions enforcing the UPC, PEX tubing must not be installed within the first 18 inches (457 mm) of piping connected to a water heater.

**Inspection of Water Distribution Tubing:** Installed piping must be pressure-tested and inspected as required by IPC Section 312, IRC Section P2503.7 or UPC Sections 105 and 609.4.

**Radiant Heating Systems:** The tubing must be pressure-tested for leaks before installation of the cover, as noted in IRC Section M2103.4, IMC Section 1208, USHGC Section 405 or UMC Section 1205, as applicable. The leak test must be witnessed by the code official.

Clearance from heat-producing equipment must be in accordance with IFGC Section 503.7.8, IRC Section M1306 USHGC Section 417.5 or UMC Section 802.10.4, as applicable.

Combustible piping may be installed in areas required to be of noncombustible construction. The Stream33 cross-linked polyethylene (PEX) tubing products were tested to ASTM E84 and ULC S102 and were found to have a flame-spread (FS) rating of not more than 25 and a smoke-developed index (SD) rating of not more than 50 when tested. The tubing products have been evaluated for installation in either horizontal or vertical orientations in return-air plenums. Ratings for tubing larger than ½" nominal tube size apply when tube is field insulated with fiberglass insulation meeting the following requirements: ASTM E84 listed and having a Flame Spread Index of <25 and a Smoke Developed Index of <50, a Wall thickness of not less than ½" and there shall be no exposed tubing.

**Models:**

**Tubing:** Stream33 PEX-a and Oxygen Barrier tubing products are manufactured from cross linked polyethylene (PEX) materials and is available in white, red or blue.

The tube is available in 3/8-, 1/2-, 5/8-, 3/4-, 1-, 1 1/4-, 1 1/2- and 2-inch (10, 13, 16, 19, 25, 32, 38 and 51 mm) nominal diameter sizes, and in coils 100, 300, 500 and 1000 feet (30.4, 91.4, 152.4 and 304.8 m) long, or in straight lengths 20 feet (6.2 m) long. Stream33 tubing products are pressure-rated for 100 psi (689 kPa) at 180°F (82°C), and 160 psi (1100 kPa) at 73°F (23°C), for a standard dimension ratio of 9. Standard dimension ratio is the ratio of outside diameter to wall thickness and is constant for all Stream33 tube sizes.

**Conditions of Listing:**

1. Details on the design and installation of the heating system must be submitted to the code official for approval.
2. During placement of cover over the tubing, the tube must be maintained at the greater of 1<sup>1</sup>/<sub>2</sub> times the working pressure or 100 psi (689.4 kPa).
3. The tubing installation must be pressure-tested for leaks in the presence of the code official or the code official's designated representative.
4. When installation is in fire-resistance-rated assemblies, evidence of compliance with IBC Section 713 (penetrations) must be provided to the code official.
5. The potable water connections must be protected against backflow from the hydronic heating system.
6. The tubing must not be used as a source of electrical ground.
7. The minimum cold bending radius is six times the outside tube diameter for cold-bent tube and three times the outside diameter for hot-bent tube. The outside diameter is the nominal diameter plus 1/8 inch (3.2 mm).
8. The tubing serving as a component of radiant systems is limited to applications using potable water as the transfer fluid.
9. When the system is embedded in concrete, tubing must be covered a minimum of 3/4 inch (19.1 mm) and installation must comply with IBC Section 1906.3.
10. Stream33 tubing must be protected from exposure to direct sunlight. Tubing and fittings must be protected from physical damage with an oversized flexible corrugated sleeve at structural mass penetrations and when the tube is uncovered. Annular spaces between sleeves and pipes must be filled or tightly caulked in an approved manner.
11. The tubing recognized in this listing are manufactured under a quality control program with inspections by ICC-ES.