Uponor PEX vs. PE-RT

With more than 40 years of proven performance and 17 billion feet of pipe installed worldwide, Uponor is the leader in flexible polymer piping systems offering the industry's most tested, listed, and code-approved PEX piping product on the market.

PE-RT is a non-crosslinked polyethylene piping material that has disadvantages when compared to the properties and characteristics of Uponor PEX.

Features	PEX	PE-RT
Meets requirement to withstand 720 hours of constant pressure at 150 psi	✓	✗
Fully listed to ASTM E84 and CAN/ULC S101/102.2 for fire-resistive construction	✓	✗
Meets environmental stress crack requirement of 100 hours	✓	✗
Designed specifically for F1960 expansion fittings	✓	✗[1]
Most comprehensive offering in sizes up to 3"	✓	✗
Crosslinked for greater durability	✓	✗
Proven performance for 40+ years	✓	✗
Proven UV resistance	✓	✗
Kink repairable	✓	✗
200°F (93.3°C) hydrostatic rating	✓	✗
Potable listing for barrier pipe	✓	✗
Proven resiliency in freeze/thaw cycles	✓	✗
180°F temperature rating	✓	✓
Compatible with F1807 and F2159 fittings	✓	✓
25-year warranty	✓	✓[2]
Recyclability	✓	✓[3]
More flexible than PEX-b and PEX-c	✓	✓

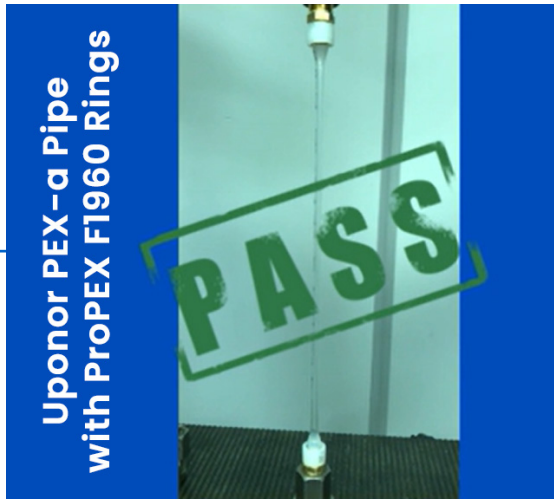
[1]While some PE-RT manufacturers claim their pipe is compatible with F1960 fittings, the pipe does not have the same elasticity as PEX-a, and therefore connections could be at risk for failure.

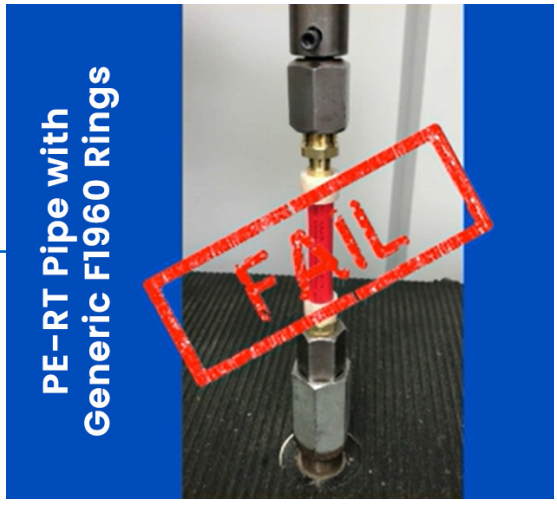
[2]Some PE-RT manufacturers claim to have a longer warranty, but coverage may not be transferable to subsequent owners.

[3]PEX can be ground down and reused (does not include being used in the extrusion process); PE-RT can be ground down and reused (including being used in the extrusion process).

An internal test examined joint and pipe integrity under load. After 0.56" of travel at 364 lbf max. load, the fitting pulled off the PE-RT pipe. Uponor system had no failure after 12.6" of travel at 364 lbf max. load.

Because PE-RT is not crosslinked, it compromises the strength of the connection. Uponor PEX pipe and ProPEX® fittings are designed and tested for strength and durability. Don't risk your reputation on pipe and fittings that can't meet your performance standards.





The Uponor Advantage

Support

- Extensive sales team expertise
- Dedicated product development staff
- Technical and application support via phone, email, or live chat online
- Estimation and design assistance for plumbing, fire safety, hydronic piping, and radiant heating and cooling systems for residential and commercial applications
- In-field, online, and factory training
- Jobsite installation support

System Performance

- ProPEX F1960 expansion fittings are a highly engineered product designed specifically for Uponor PEX-a pipe to create a strong, reliable, durable connection that professionals have trusted for decades.
- Using F1960 connections with PE-RT introduces risk of failure to a system since PE-RT does not feature the same pipe elasticity of PEX-a.
- Generic F1960 fittings also introduce risk as well. Internal Uponor testing on low-quality F1960 fittings revealed failures with out-of-spec dimensions, flash, and residual stress.
- PEX pipe is required to withstand 720 hrs of 150 psi constant pressure with water at 210°F (99°C) before failure whereas PE-RT is only required to withstand 48 hours and cannot meet the same temperature and pressure ratings as PEX.
- For environmental stress crack resistance (ESC), PEX pipe is required to withstand 100 hours before failure. PE-RT pipe has no known test method for proving durability with ESC.
- In the rare instance of a kink with PEX-a pipe, a simple shot of heat from a heat gun is all that is required. A kink in PE-RT will require a coupling, which, in some jurisdictions, is not allowed in the slab.
- The Plastics Pipe Institute (PPI) Technical Report TR-52 proves the resiliency of PEX pipe in freeze/thaw cycles. There is no test report proving the resiliency of PE-RT in freeze/thaw cycles.
- PEX offers higher hydrostatic temperature and pressure ratings up to 200°F (93.3°C) at 80 psi; PE-RT is only rated to 180°F (82.2°C).
- The potable rating on Wirsbo hePEX™ barrier pipe allows the use of short pieces for plumbing applications (allowing the contractor to use unused barrier pipe for potable-plumbing applications, eliminating waste and saving money).
- The crosslinking of PEX provides the best workability in colder climates. Since PE-RT is not crosslinked, the material is not as workable in cold weather.
- Uponor has the most comprehensive offering of pipe and fittings in both brass and engineered polymer (EP) for plumbing, heating, and cooling applications in sizes up to 3". PE-RT has a limited offering of pipe sizes and fittings.
- Milwaukee® M12™ and M18™ ProPEX expansion tools are designed specifically for use with Uponor PEX-a and ProPEX fittings for the most efficient, durable connection available.

Confidence

- With more than 17 billion feet of PEX pipe installed worldwide, professionals trust the smarter, safer, more reliable solutions from Uponor.
- Uponor PEX is the most tested, listed, and code-approved pipe available on the market for reassurance the product you purchase and install is designed to last for decades.
- Uponor PEX and the ProPEX fitting system is proudly backed by a 25-year warranty for added peace of mind.

Learn more about how Uponor can help drive your business forward at uponor.com.

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