

CHARACTERISTICS

Pex pipes have been used safely and reliably for over 50 years worldwide. They are designed for a life span of more than 50 years, temperatures up to 203°F and operating pressures of 87 to 145psi.

Temperature peaks of 230°F at an operating pressure of 58psi do not affect the pipes

- ▶ Due to their cross-linking structure, **the pipes have a thermal memory** that allows them to return to their original form after thermal stress. Essentially, the internal structure of the material is affected by the form given during production.
- ▶ Pex pipes exhibit excellent aging resistance combined with high pressure and temperature conditions.

- 200°F (93°C) at 80psi (551 kPa)
- 180°F (82°C) at 100psi (689 kPa)
- 73.4°F (23°C) at 160psi (1102 kPa)

PEX 5306 - Highest chlorine resistance rating according to ASTM F876. It is for use in continuous domestic hot water circulation systems (up to a 140°F water temperature) in accordance with ASTM test method F2023. Pex pipes are pipes are certified for UV protection in accordance with ASTM test method F2657 according to ASTM F876.

The service life diagram confirms the excellent performance when used in accordance with the manufacturer's specifications and instructions.

- ▶ Pex pipes are durable, flexible and completely reliable for plumbing and heating applications.
- ▶ Pex pipes produced with or without oxygen barrier meet and exceed (ASTM F876/877, CSA B137.5, NSF 14, NSF/ANSI 61, **NSF 372**).
- ▶ They are well designed for applications in heating, especially underfloor heating installations, where the length of the circuits of the pipes requires their use. In case the pipe does not have oxygen barrier, the heat exchanger is required in order to avoid oxygen corrosion.



Property	ASTM Test Method	TYPICAL VALUES	
		English Unit	SI Units
Density	D 792	–	0.946g/cc
Melt Index *1 (190°C/2.16kg)	D 1238	–	0.7g/10min
Flexural modulus *2	D 790	150,000psi	830MPa
Tensile Strength @ Yield (2in/min)	D 638	2,900psi	20Mpa
Coefficient of Linear Thermal Expansion @ 68°F	D 696	9.2x10-5/in/°F	15x10-4/°C
Hydrostatic Design Basis @ 73°F (23°C)	D 2837	1,250psi	8.6MPa
Hydrostatic Design Basis @ 180°F (82°C)	D 2837	800psi	5.5MPa
Vicat Softening Point	D 1525	255°F	124°C
Thermal Conductivity	D 177	"2.86 Btu·in/(ft²·hr·°F)	"0.41 W/(m·°K)

*1 Before Cross-linking / *2 73°F

STANDARDS

CSA B137.5

Thermoplastic pressure piping compendium

ANSI / NSF 14

Plastics Piping System Components and Related Materials

ANSI / NSF 61

Drinking Water System Components - Health Effects

ASTM F876

Standard Specification for Crosslinked Polyethylene (PEX) Tubing

ASTM F877

Standard Specification for Crosslinked Polyethylene (PEX) Hot-and-Cold-Water Distribution Systems

NSF 372

Drinking Water System components - Lead Content

UL 1821

Thermoplastic Sprinkler Pipe and Fittings for Fire Protection Service (by Right testing Labs)

ASTM F2023

American Society for Testing and Materials Standard Test Method for Evaluating the Oxidative Resistance of Cross-linked Polyethylene (PEX) Tubing and Systems to Hot Chlorinated Water