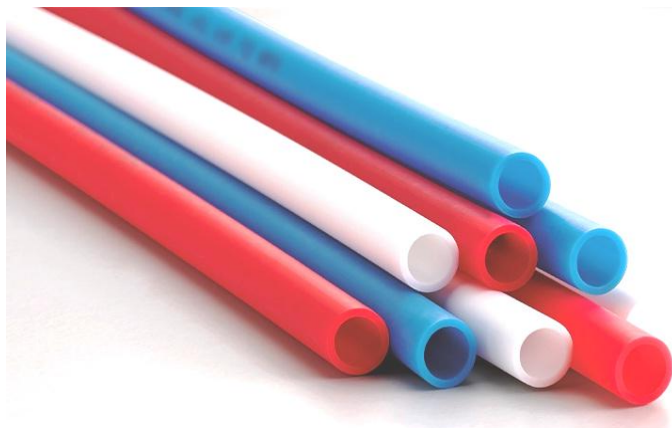




PEX pipe



PEX pipe is cross-linked, high-density polyethylene. All PEX is available in red, white and blue for easy identification of hot, cold, and main water lines. PEX pipe is produced using the high-pressure peroxide method for crosslinked polyethylene in accordance with ASTM F876, F877 and NSF 14/61 standards. PEX pipe also meets the requirements of ASTM F2023 for chlorine resistance. PEX pipe is manufactured using a quality management system which has been certified to the latest version of ISO 9001.

Use of PEX pipe in heating systems requires corrosion protection and/or isolation by using a heat exchanger or non-ferrous components throughout the system. The pipe may be installed in concrete, gypsum-based lightweight concrete, sand, asphalt, in or under wood flooring, or behind wallboard or plaster.

Technical Specifications

Min. Density	58 lb/ft
Min. Degree of Crosslinking	70%
Max. Thermal Conductivity	2.84 Btu in/(ft°F hr)
Coefficient of Linear Expansion	9.33×10^{-4} in/ft°F @ 68°F
	1.33×10^{-3} in/ft°F @ 212°F
Modulus of Elasticity	87,000-130,500 psi @ 68°F
	43,500-58,000 psi @ 176°F
Tensile Strength	4194-4355 psi @ 68°F
	2610-2900 psi @ 176°F per ASTM D638
IZOD Impact Resistance	No Break
Roughness	$e=0.00028$ in
Temperature Working Range	-40 to 200°F
Max. Short-term Exposure	150 psig @ 210°F (48 hr)

Features

Superior flexibility allows for fewer joints, thus reducing leak points
Expandable and allows for “full flow”
Less coil memory than traditional PEX pipe and resists the urge to remain coiled
Compatible with both expansion and crimp, clamp or sleeve methods of joining
Heat-repairable if kinked during installation, thus further eliminating additional repair connections
Shape memory inherent in PEX pipe results in the shrinking of expanded pipe to normal size, creating strong, durable, and reliable ASTM F1960 fitting connections
Maximum cross-linking increases flexibility and resistance to cracking
Copper tube size dimensions (CTS)
Available in red, blue, and white colors
Approved for use with brass and poly alloy crimp fittings (ASTM F1960 and ASTM 1807)

Installation

Cut PEX pipe at a 90° angle using a PEX pipe cutter. Clear the cut end of any burrs or debris.

PEX pipe can be run through holes drilled into the center of studs or by using straps and hangers.

Bend supports can be used to make bends and angles instead of having to cut the pipe and use fittings.

A variety of barb insert fittings or push type fittings can be used with PEX pipe. DO NOT expose it to direct sunlight.

It is recommended to insulate hot water lines with standard foam polyethylene pipe insulation to prevent heat loss.

If installing in an area that experiences harsh winters, it's recommended to insulate both hot and cold water lines to prevent freezing.



PEX pipe

Sizes and Other Details

Nominal Tubing Size	Average Outside Diameter		Tolerance for Average Diameter	
	Inch	mm	In.	mm
1/8	0.250	6.35	±0.003	±0.08
1/4	0.375	9.52	±0.003	±0.08
5/16	0.430	10.92	±0.003	±0.08
3/8	0.500	12.70	±0.003	±0.08
1/2	0.625	15.88	±0.004	±0.10
5/8	0.750	19.05	±0.004	±0.10
3/4	0.875	22.22	±0.004	±0.10
1	1.125	28.58	±0.005	±0.12
1 1/4	1.375	34.92	±0.005	±0.12
1 1/2	1.625	41.28	±0.006	±0.16
2	2.125	53.98	±0.006	±0.16
2 1/2	2.625	66.68	±0.007	±0.18
3	3.125	79.38	±0.008	±0.20
3 1/2	3.625	92.08	±0.008	±0.20
4	4.125	104.78	±0.009	±0.23
4 1/2	4.625	117.48	±0.009	±0.23
5	5.125	130.18	±0.010	±0.25
6	6.125	155.58	±0.011	±0.28

Wall Thickness and Tolerances				
Nominal	Minimum Wall		Tolerance	
	In.	mm	In.	mm
1/8	0.047	1.19	+0.007	+0.18
1/4	0.062	1.57	+0.010	+0.25
5/16	0.064	1.63	+0.010	+0.25
3/8	0.070	1.78	+0.010	+0.25
1/2	0.070	1.78	+0.010	+0.25
5/8	0.083	2.12	+0.010	+0.25
3/4	0.097	2.47	+0.010	+0.25
1	0.125	3.18	+0.013	+0.33
1 1/4	0.153	3.88	+0.015	+0.38
1 1/2	0.181	4.59	+0.019	+0.48
2	0.236	6.00	+0.024	+0.61
2 1/2	0.292	7.41	+0.030	+0.76
3	0.347	8.82	+0.033	+0.84
3 1/2	0.403	10.23	+0.035	+0.89
4	0.458	11.64	+0.040	+1.02
4 1/2	0.514	13.05	+0.045	+1.14
5	0.569	14.46	+0.050	+1.27
6	0.681	17.29	+0.060	+1.52

Hydrostatic Design Stresses and Pressure Ratings for PEX Tubing for water at Different Temperatures

Rated Temperature		Hydrostatic Design Stress		Pressure Rating For Water	
°F	°C	psi	(Mpa)	psi	(Mpa)
73	23	630	4.34	160	1.10
180	82	400	2.76	100	0.69
200	93	315	2.17	80	0.55

Application

Radiant Heating Systems that do (Commercial, Industrial & Residential) - floors, wall, ceilings.
 Snow / Ice Melting Systems (in concrete & under asphalt).
 Non-potable water distribution
 Hydronic Recirculation Systems
 Geothermal applications