



MARYLAND PIPE & SUPPLY CO., LLC



SDR-9 Cross-linked polyethylene (PEX)

SUBMITTAL AND DATA SHEET

SCOPE:

This information details the specific characteristics of PEX tubing used in hot and cold water distribution. PEX meets the requirements of ASTM F876 and ASTM F 877, all tubing is SDR-9 (determines wall thickness) and is produced to copper tube size (CTS) dimensions.

MATERIALS:

PEX cross-lined polyethylene, both red and blue, is produced using the silane based technology. This involves the grafting organo-silanes onto a base material of cross-linkable high density polyethylene. Cross-linking is initiated at the time of production and is accelerated through the introduction of heat and water/steam as a post production process.

MARKINGS:

PEX, followed by a listing of the appropriate ASTM standards and NSF certifications, nominal size, material designation code, design pressure and temperature ratings, manufacturing date and production code.

APPLICATIONS:

Designed for use in hot and cold potable water distribution systems that do not exceed 160 psi @ 73°F and 100 psi @ 180°F.

HANDLING AND INSTALLATION:

Although PEX tubing is resistant to normal jobsite damage it may be damaged through abrasion or contact with surfaces with a cutting edge. Use of these materials is subject to compliance with applicable code requirements, good plumbing practices and current installation practices as produced by a professional engineer or nationally recognized specification entity.

QUALITY ASSURANCE:

Marking the product with ASTM F876/F877 reference is a statement that this material was produced, inspected and tested in conformance with these specifications. The reference to NSF certification is your assurance the material was tested for health effects to ANSI/NSF standard 61 and product performance to ANSI/NSF standard 14. NSF CL-TD is the assurance the material has been and continues to be tested and conforms to NSF Protocol P171, Chlorine Resistance of Plastic Piping Materials. Certified by NSF for use in Traditional Domestic applications by testing against ASTM Standard F2023, Evaluating Tubing and Systems to Hot Chlorinated Water. This standard is more stringent than ASTM F876, providing a greater assurance of meeting design life predictions in adverse environments.

SDR-9 PEX Tubing						
ASTM F876/F877/CTS-OD SDR-9						
STOCK CODE	TUBING SIZE	O.D.	WALL THICKNESS	NOM. I.D.	WEIGHT PER FT.	VOLUME (Gal) per 100 FT
PX2	3/8"	0.500±.003	0.070+.010	0.350	.0413	0.50
PX3	1/2"	0.625±.004	0.070+.010	0.475	.0535	0.92
PX4	3/4"	0.875±.004	0.097+.010	0.671	.1023	1.82
PX5	1"	1.125±.005	1.125+.013	0.863	.1689	3.04

Note: Dimensions are in English units. Tolerances shown are ASTM requirements. PEX is manufactured within these specifications.

Pressure Drop Table				
Expressed as PSI/ft. Pressure Drop				
GPM	3/8"	1/2"	3/4"	1"
1	.070	.016		
1.5	.149	.034		
2.2	.303	.069		
2.5	.385*	.087		
3	.539	.122	.023	
3.5	.7217	.162	.030	
4		.208-	.039	
5		.314	.059	
6		.440	.082	
7		.586	.109	.032
8			.140	.041
9			.174*	.051
10			.211	.062
11			.252	.074
12			.296	.087
13			.343	.101
14				.116
15				.184
16				.224
18				.267
20				
22				

*Indicates 8 fps maximum velocity required by some plumbing codes. NOTE: Maximum flow for each size based on 12 FPS velocity.
PSI x 2.307 = head loss.

Minimum Burst Pressure (PSI) Per ASTM F876/F877		
SIZE	73°F (23°C)	180°F (82°C)
3/8"	620	275
1/2"	480	215
3/4"	475	210
1"	475	210

NOTE: PEX tubing may be bent to a minimum of 5 x O.D. with approved bend support.