

MATERIAL SPECIFICATION SHEET



LYNX-PEX™ Reclaim Tubing

SCOPE:

This material specification designates the requirements for LYNX-PEX™ Reclaim Tubing. All LYNX-PEX™ Reclaim Tubing corresponds to copper tube size (CTS) dimensions, with wall thicknesses corresponding to Standard Dimension Ratio (SDR) 9.

MATERIALS:

All LYNX-PEX™ Reclaim Tubing is manufactured from a cross-linkable high-density polyethylene produced by grafting organo-silanes onto a polyethylene base (PEXb). A catalyst (accelerator) added to the cross-linkable polyethylene during extrusion initiates the cross-linking process. Cross-linking is completed with hot water or steam (sauna). The advanced formulation ensures that when the product is exposed to UV radiation, it will retain both its physical properties, as well as its long-term Chlorine/ORP resistance, at the highest level in the industry today. This single layer product is provided in purple.

MARKING & CERTIFICATION:

All LYNX-PEX™ Reclaim Tubing is marked with the name CB Supplies as the manufacturer, nominal size, material designation code PEX 5306 (indicating the industry's highest chlorine and UV resistance ratings), design pressure and temperature ratings, manufacturing date, production code, footage markers in increments of 5 ft., and the listing marks of relevant specifications.

LYNX-PEX™ Reclaim Tubing has been evaluated to the following codes and standards:

ANSI/AWWA C904, Crosslinked Polyethylene (PEX) Pressure Tubing, 1/2 In. (13 mm) Through 3 In. (76 mm), for Water Service

ASTM F876, Standard Specification for Crosslinked Polyethylene (PEX)

ASTM F877, Standard Specification for Crosslinked Polyethylene (PEX) Plastic Hot- and Cold-Water Distribution Systems

ASTM F1807, Standard Specification for Metal Insert Fittings Utilizing a Copper Crimp Ring for SDR9 Cross-linked Polyethylene (PEX) Tubing and SDR9 Polyethylene of Raised Temperature (PE-RT) Tubing

ASTM F2159, Standard Specification for Plastic Insert Fittings Utilizing a Copper Crimp Ring for SDR9 Cross-linked Polyethylene (PEX) Tubing and SDR9 Polyethylene of Raised Temperature (PE-RT) Tubing

ASSE 1061, Performance Requirements for Push-Fit Fittings

CSA B137.5, Crosslinked polyethylene (PEX) tubing systems for pressure applications

International Plumbing Code® (IPC)

International Mechanical Code® (IMC)

International Residential Code® (IRC)

NSF/ANSI 14, Plastic Piping System Components and Related Materials

NSF-rw, Reclaimed Water Piping

Uniform Plumbing Code® (UPC)

Uniform Mechanical Code® (UMC)

RECOMMENDED USES:

LYNX-PEX™ Reclaim Tubing is intended and recommended for use in reclaimed water distribution systems in accordance with CSA B128.1. Design temperature and pressure ratings for LYNX-PEX™ Reclaim Tubing are 160 psi @ 73°F and 100 psi @ 180°F per CSA B137.0 section 6.6.3.1, and 200 psi @ 73°F per CSA B137.0 section 6.6.3.2.2. For information on the suitability for other hot and cold water applications not listed here, consult with your CB Supplies representative.

HANDLING AND INSTALLATION:

LYNX-PEX™ Reclaim Tubing is tough yet flexible. However, it is softer than metals and may be damaged by abrasion or by objects with cutting edges. Use of these materials in reclaimed water distribution systems must be in accordance with good plumbing practices, applicable code requirements and current installation practices available from CB Supplies. LYNX-PEX™ Reclaim Tubing is manufactured to meet International, Uniform and Canadian Codes and Standards. Contact a CB Supplies representative or the applicable code enforcement bureau for information about approvals for specific applications.

MATERIAL PROPERTIES:

Property	ASTM Test Method	English Units	SI Units
Density	D1505	–	0.944 g/cc
Melt Index ¹ (190°C/2.16 kg)	D1238	–	0.1 g/10 min
Flexural Modulus ²	D790	152,000 psi	1050 MPa
Tensile Strength @Yield (2 in/min)	D638	2,900 psi	20 MPa
Coefficient of Linear Thermal Expansion @ 68°F	D696	8x10 ⁻⁵ /°F	1.5x10 ⁻⁴ /°C
Hydrostatic Design Basis @ 73°F (23°C)	D2837	1,250 psi	8.6 MPa
Hydrostatic Design Basis @ 180°F (82°C)	D2837	800 psi	5.5 MPa
Vicat Softening Point	D696	255°F	124°C
Thermal Conductivity	D177	2.4 Btu-in/(hr)(ft ²)(°F)	3.5 x 10 ⁻³ Watts/(cm ²)(°C/cm)

1. Before cross-linking

2. 73°F



LYNX-PEX™ Reclaim Tubing

QUALITY ASSURANCE

LYNX-PEX™ Reclaim Tubing is made with care in Canada and evaluated via regular sampling and randomized site inspections by third party organizations accredited to ISO/IEC 17020, and independent testing and listings for compliance to all performance and toxicological standards listed herein by organizations accredited to ISO/IEC 17065.

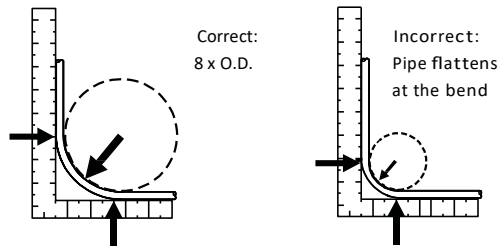
MAXIMUM RESISTANCE

LYNX-PEX™ Reclaim Tubing is made from PEX 5306 material, meeting ASTM F876 and CSA B137.5 requirements for the industry's highest chlorine and UV resistance ratings. LYNX-PEX™ Reclaim Tubing's resistance is evaluated according to ASTM Standards F2023 and F2657.

MINIMUM BURST PRESSURE (PSI)

Per ASTM F876 (CTS-OD) SDR-9

Size	74° F (23° C)	180° F (82° C)
1/2"	480	215
3/4"	475	210
1"	475	210
1-1/4"	475	210
1-1/2"	475	210
2"	475	210



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

PRESSURE DROP TABLE

Expressed as PSI/FT Pressure Drop (US Gallons / Minute and Nominal I. D. used for calculation)

GPM	Nominal Size					
	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
1	.019					
1.5	.038					
2.2	.075					
2.5	.093					
3	.128	.025				
3.5	.169	.033				
4	.213	.041				
5	.317*	.061				
6	.439	.084	.026			
7	.579	.111	.034			
8		.141	.042			
9		.173*	.052			
10		.209	.063	.024		
11		.248	.075	.029		
12		.290	.087	.033		
13		.336	.101	.039		
14			.115	.044		
16			.147*	.056	.025	
18			.181	.069	.031	
20			.219	.083	.038	
22			.261	.099*	.045	
24				.116	.052	
26				.134	.060	
28				.153	.069	
30				.174	.078*	
32					.088	.024
34					.098	.027
36					.109	.030
38					.120	.033
40					.132	.036
46					.171	.046
52						.058*
80						.128

EXAMPLE: To calculate the pressure drop of a 1/2" line, 40 ft. long, with a 3 gpm flowrate, calculate .128 psi x 40ft. = 5.12 psi pressure drop. Most plumbing codes require 8 psi residual pressure at the fixture. Refer to your local code requirements.

*Indicates 8 fps maximum velocity allowed by some plumbing codes.

NOTE: Maximum flow for each size based on 12 fps velocity. PSI x 2.307 = headloss.

TUBING DIMENSIONS

Nominal Size	O.D.	Wall Thickness	I.D.	Weight (lbs/ft.)	Volume (Gal/100 ft.)
3/4"	0.875" ± 0.004"	0.097" + 0.010"	0.681"	0.102	1.90
1"	1.125" ± 0.005"	0.125" + 0.013"	0.875"	0.169	3.13
1-1/4"	1.375" ± 0.005"	0.153" + 0.015"	1.069"	0.251	4.53
1-1/2"	1.625" ± 0.006"	0.181" + 0.019"	1.263"	0.352	6.31
2"	2.125" ± 0.006"	0.236" + 0.024"	1.653"	0.599	10.83

NOTE: Dimensions are in English units. Tolerances shown are ASTM requirements. LYNX-PEX™ Reclaim Tubing is manufactured to within these specifications.



CB SUPPLIES LTD.
cbsupplies.ca

PHONE: 1.800.665.1851
EMAIL: sales@cbsupplies.ca

3325 190th Street
Surrey, BC V3Z 1A7
Canada