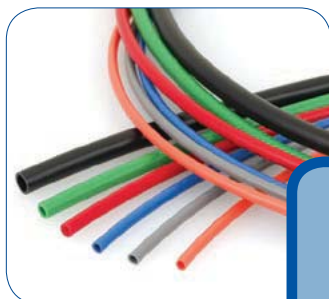


Polyethylene Tubing

Common Tubing for Common Applications



Polyethylene Applications

- Potable Water Feed/Drains
- Pneumatic or Signal Lines
- Liquid/Air Transfer

Polyethylene is the most commonly used tubing due to its flexibility, wide range of chemical resistance and lower cost.

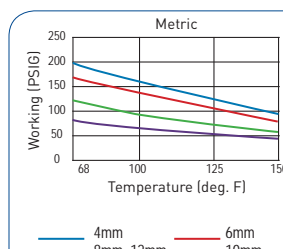
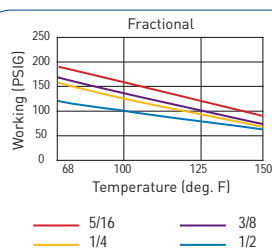
Polyethylene Property Overview

- Flexible
- Chemically Inert
- UV Resistant (Black tube)
- Temperature Range: -100°F to +150°F (-73°C to +66°C)

Typical Applications

- Low Pressure Pneumatics

LLDPE has a much higher resistance to stress cracking as compared to other Polyethylene compounds. It is also chemically inert, meaning it forms a good barrier against moisture, vapors and gases – minimizing the possibility of leaks or contamination. Where prolonged exposure to sunlight or ultraviolet (UV) light is a concern, black tubing is recommended for extended life.



Polyethylene Fractional Inch Tubing

Tube O.D.	Tube I.D.	Wall Thickness	Part Number			Min. Bend Radius	Weight	Working Pressure		Burst Pressure	Color Code
			100'	500'	1000'			PSI@68°F	PSI@125°F		
inch	inch	inch	Reel	Reel	Reel	inch	1000' (lbs.)			PSI@68°F	Suffix Key
1/4	0.170	0.040	6244_	6444_	6644_	3/4	10.9	160	95	480	0 = Natural
5/16	0.190	0.062	6255_	6455_	6655_	5/8	20.2	193	121	580	1 = Black
3/8	0.250	0.062	6266_	6466_	6666_	1-1/8	25.3	167	107	500	2 = Red
1/2	0.375	0.062	6288_	6988_*	6688_	2-1/8	35.5	120	78	360	3 = Blue

* Indicates 250' Reel

Adding a Color Code suffix to the part number is required. If no Color code is selected, Natural (0) color will be supplied. Custom sizes, cut lengths, reel lengths and colors are available upon request - contact Customer Service.

4 = Green
5 = Yellow
6 = Orange
7 = Gray

Polyethylene Metric Tubing

Tube O.D.	Tube I.D.	Wall Thickness	Part Number			Min. Bend Radius	Weight	Working Pressure		Burst Pressure	Color Code
			100'	500'	1000'			PSI@68°F	PSI@125°F		
mm	mm	mm	Reel	Reel	Reel	mm	1000' (lbs.)			PSI@68°F	Suffix Key
4	2.5	0.75	7203_	7503_	7803_	12	5.0	200	125	600	0 = Natural
6	4	1.00	7206_	7506_	7806_	36	10.2	167	110	500	1 = Black
8	6	1.00	7208_	7508_	7808_	48	14.2	117	70	350	2 = Red
10	8	1.00	7211_	7511_	7811_	60	18.3	83	50	250	3 = Blue
12	9	1.50	7213_	7513_	7813_	70	31.5	117	70	350	4 = Green

Media to Plastic Tubing Material Compatibility Guide

Media	PE	N	U	PVDF
Acetone	P	G	P	P
Acetyl Bromide	L	P	-	-
Acetyl Chloride	L	P	-	G
Air	G	G	G	G
Alcohols	G	G	L	G
Aluminum Salts	G	G	G	-
Ammonia	G	G	G	G
Amyl Acetate	G	G	L	G
Aniline	L	P	P	G
Animal Oils	P	G	G	G
Arsenic Salts	G	G	G	-
Aromatic Hydrocarbons	P	G	L	G
Barium Salts	G	G	G	-
Benzaldehyde	P	L	L	G
Benzene	P	G	L	G
Benzyl Alcohol	P	L	L	G
Bleaching Liquors	G	L	L	-
Boric Acid Solutions	G	G	G	G
Bromine	L	P	P	G
Butane	L	G	P	G
Butanol	G	G	G	-
Butyl Acetate	G	G	L	G
Calcium Hypochlorite	L	P	P	G
Calcium Salts	G	G	G	-
Carbon Dioxide	G	G	G	G
Carbon Disulfide	L	L	L	G
Carbon Tetrachloride	P	L	P	G
Caustic Potash	G	G	G	G
Caustic Soda	G	G	G	G
Chloracetic Acid	L	L	P	G
Chlorine (Dry)	L	P	P	G
Chlorine (Wet)	L	P	L	G
Chlorobenzene	P	L	L	G
Chloroform	P	P	P	G
Chromic Acid	L	P	P	G
Copper Salts	G	G	G	-
Cresol	P	P	P	G
Cyclohexanone	L	L	P	G
Ethers	L	G	P	G
Ethyl Acetate	G	G	L	G
Ethyl Alcohol	G	L	G	-
Ethylamine	L	L	L	-
Ethyl Bromide	P	L	-	G
Ethyl Chloride	P	L	-	G
Fatty Acids	L	G	L	G

Media	PE	N	U	PVDF
Ferric Salts	G	G	G	-
Formaldehyde	G	L	P	G
Formic Acid	G	P	P	G
Freon	L	G	L	#
Gasoline	P	G	L	G
Glucose	G	G	G	G
Glycerin	G	G	L	G
Hydriodic Acid	L	P	-	-
Hydrochloric Acid. (Conc.)	L	L	P	G
Hydrochloric Acid. (Med. Conc.)	L	L	P	G
Hydrofluoric Acid	L	P	P	G
Hydrogen Peroxide (Conc.)	L	L	L	L
Hydrogen Peroxide (Dil.)	L	G	G	G
Hydrogen Sulfide	G	G	P	G
Iodine	L	G	L	G
Kerosene	L	G	L	G
Ketones	G	G	P	G
Lacquer Solvents	L	G	-	G
Lactic Acid	G	G	G	G
Lead Acetate	G	G	G	G
Linseed Oil	L	G	G	G
Magnesium Salts	G	G	G	-
Naphtha	L	G	L	G
Natural Gas	L	G	G	G
Nickel Salts	G	G	G	-
Nitric Acid (Conc.)	P	P	P	G
Nitric Acid (Dil.)	P	L	P	G
Nitrobenzene	P	L	P	G
Nitrogen Oxides	L	L	-	-
Nitrous Acid	L	L	L	G
Oils (Animal and Mineral)	L	G	G	G
Oils (Vegetable)	L	G	G	G
Oxygen	G	G	G	G
Perchloric Acid	P	P	P	G
Phenols	P	P	P	G
Potassium Salts	G	G	G	-
Pyridine	L	L	P	G
Silver Nitrate	G	G	G	G
Soap Solutions	G	G	G	G
Sodium Salts	G	G	G	-
Stearic Acid	L	G	L	G
Sulfur Chloride	L	L	-	G
Sulfuric Acid (Conc.)	P	P	P	-
Sulfuric Acid (Dil.)	P	L	L	-
Sulfurous Acid	P	L	L	G

(Cont.)

Media	PE	N	U	PVDF
Tannic Acid	G	G	P	G
Tanning Extracts	G	G	P	-
Titanium Salts	G	G	G	-
Toluene	P	G	L	L
Trichloroacetic Acid	L	P	P	L
Trichloroethylene	P	L	P	L
Turpentine	P	G	L	G
Urea	G	G	G	G
Uric Acid	G	G	G	-
Water	G	G	G	G
Xylene	P	G	P	G
Zinc Chloride	G	G	G	G

MATERIAL CODE FOR THERMOPLASTIC TUBING	
N	Flexible Nylon
PE	Linear Low Density Polyethylene
U	Polyurethane

MATERIAL CODE FOR FLUOROPOLYMER TUBING	
PVDF	Polyvinylidene Fluoride

RATINGS CODE		
G	—	Good to excellent. Little or no swelling, tensile or surface changes. Preferred choice.
L	—	Marginal or conditional. Noticeable effects but not necessarily indicating lack of serviceability. Further testing suggested for specific application. Very long-term effects such as stiffening or potential for crazing should be evaluated.
P	—	Poor or unsatisfactory. Not recommended without extensive and realistic testing.
—	—	Indicates that this was not tested.
#	—	For fluoropolymer. Indicates good chemical resistance but potential for excessive permeation.

Notes:

The Fluid Compatibility Guides are simplified rating tabulations based on immersion tests at 75°F. Higher temperatures tend to reduce ratings. Since final selection depends on pressure, fluid and ambient temperature and other factors not known to Parker Hannifin Co., no performance guarantee is expressed or implied. Ratings do not imply compliance with specialized codes such as FDA, NSF, AGA or UL and do not cover possible fluid discoloration, taste or odor effects. For conveying foodstuffs use FDA sanctioned materials, and for potable water use NSF listed materials. For chemicals not listed, or for advice on particular applications, please consult Product Engineering at Nycoil. Hose applications for these fluids must take into account legal and insurance regulations. This does not imply AGA or UL compliance.

Chemical compatibility does not imply low permeation rates. Consult the Nycoil for a suggestion for your specific requirement.

Does not imply NSF or FDA compliance.

Chemical compatibility does not imply acceptability for use in airless paint spray applications. These applications require a special conductive hose.

Fluoropolymers are chemically compatible with Anhydrous Ammonia. However, extreme caution must be used in dealing with Anhydrous Ammonia since it can cause severe injuries such as blindness and/or chemical burns.