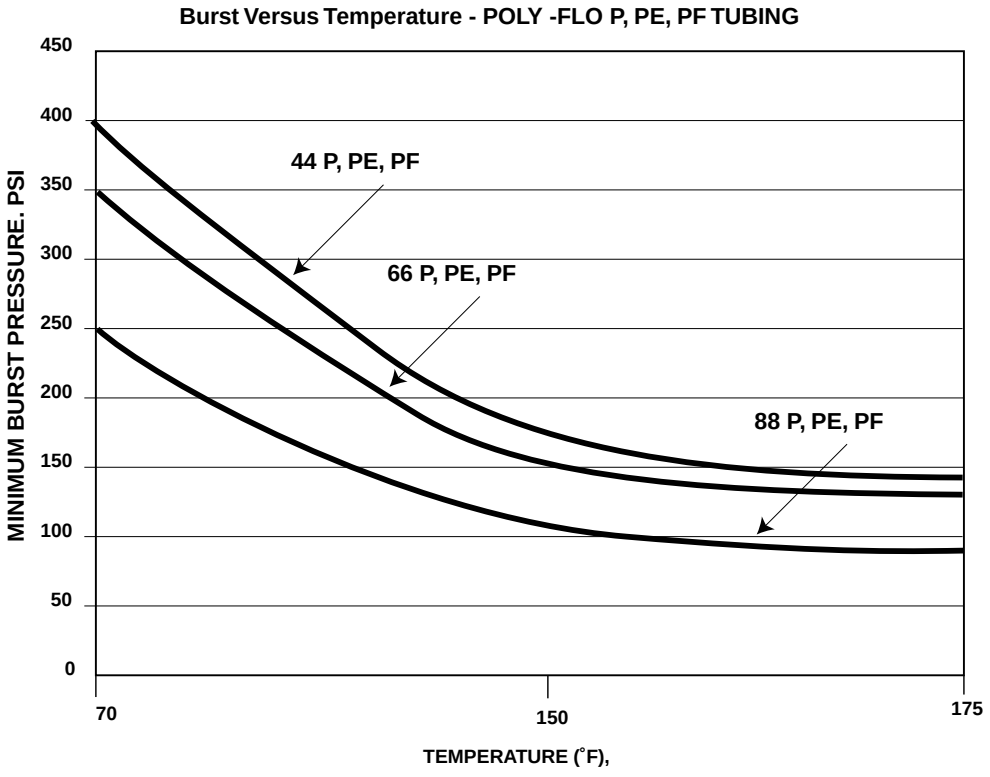
De Gidts & Feldman

INSTRUMENTATION & FILTRATION

Thermoplastic Tubing

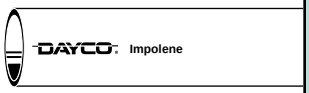
Burst vs. Temperature Data

POLY-FLO TUBING



SUGGESTED WORKING PRESSURE IS 1/4 OF BURST PRESSURE AT THE SYSTEM OPERATING TEMPERATURE

Thermoplastic Tubing

	Part No.	Tube O.D. (Inches)	Tube Wall Thickness (Inches)	Burst Pressure at 73° F (PSI)	Working Pressure at 73° F (PSI)	Min. Bend Radius (Inches)	Weight (Approx.) Per C Ft. (Lbs.)
Poly-Flo, P **(NSF Approved)** **Linear Low Density Polyethylene Tubing** 	22P 532P 33P 44P 66P 88P	1/8 5/32 3/16 1/4 3/8 1/2	0.020 0.025 0.030 0.040 0.062 0.062	500 500 500 400 350 250	125 125 125 100 87 62	1/2 5/8 3/4 1 1 1/4 2 1/2	0.29 0.44 0.65 1.10 2.50 3.40
Poly-Flo, P Black **(Non-NSF Approved)** **Linear Low Density Polyethylene Tubing** 	22P 532P 33P 44P 55P 66P 88P	1/8 5/32 3/16 1/4 5/16 3/8 1/2	0.020 0.025 0.030 0.040 0.062 0.062 0.062	500 500 500 400 600 350 250	125 125 125 100 150 87 62	1/2 5/8 3/4 1 1 1/8 1 1/4 2 1/2	0.29 0.44 0.65 1.10 1.90 2.50 3.40
Poly-Flo, PF Black **(Non-NSF Approved)** **Flame Retardent Tubing** **Linear Low Density Polyethylene Tubing** 	44PF 66PF 88PF	1/4 3/8 1/2	0.040 0.062 0.062	400 350 250	100 87 62	1 1 1/4 2 1/2	1.10 2.50 3.40
Impolene, PP **(NSF Approved)** **Polyallomer Tubing** 	22PP 33PP 44PP 66PP 88PP	1/8 3/16 1/4 3/8 1/2	0.023 0.034 0.040 0.062 0.062	900 900 900 900 750	225 225 225 225 187	1/2 3/4 1 1 1/4 2 1/2	0.28 0.63 1.10 2.40 3.30
Impolene, PP Black **(Non-NSF Approved)** **Polyallomar Tubing Black** 	22PP 33PP 44PP 66PP 88PP	1/8 3/16 1/4 3/8 1/2	0.023 0.034 0.040 0.062 0.062	900 900 900 900 750	225 225 225 225 187	1/2 3/4 1 1 1/4 2 1/2	0.28 0.63 1.10 2.40 3.30

Part No.	Colors Available	APPLICATIONS Usual Service and Temperature Range	PERFORMANCE DATA Construction/Conformances	
22P 33P 44P 66PE 88PE	Natural Natural Natural, Blue, Red, Green, Orange, Purple, Gray, Yellow Natural, Blue, Red Green, Orange, Purple, Gray, Yellow Natural	For pneumatic lines, instrumentation systems, water piping and limited food service. Temperature Range: –80˚ F to +175˚ F	Resists most solvents and chemicals. Withstands more than 500 hours in Igepal solution.	• ***Natural:*** ASTM D-1248, Type 1, Class A, Category 3 • ***Federal Spec:*** LP390C, Type 1, Class L, Grade 2, Category 3 • ***Colors:*** ASTM D-124B, Type 1, Class B, Category 3 • ***Federal Spec:*** LP 370C, Type 1, Class L, Grade 2, Category 3 • Flexible Tubing
22P 33P 44P 55P 66P 88P	Black Black Black Black Black Black	For pneumatic lines, instrumentation systems and water piping. Temperature Range: –80˚ F to +175˚ F	Resists most solvents and chemicals. Withstands more than 500 hours in Igepal solution.	• ASTM D-1248, Type 1, Class C, Category 4 • ***Federal Spec:*** LP-390C, Type 3, Class L, Grade 2, Category 4 • Flexible Tubing • Black Tubing offers outstanding resistance to sunlight
44PF 66PF 88PF	Black Black Black	For heating control systems in commercial building, chemical conduit, data control equipment systems. Ideal in gas and liquid conducting applications. Temperature Range: –80˚ F to +175˚ F	Highest resistance to environmental stress cracking of all regular polyethylene resins. Withstands more than 500 hours in Igepal solution.	• Flammability characteristic: Maximum allowable burning rate for PF tubing=3.9 cm/min per ASTM D635 • Flexible Tubing
22PP 33PP 44PP 66PP 88PP	White White White White White	For instrumentation, pneumatic and lubricant lines, hydraulic lines, process lines forgases, chemicals, and solvents. Ideal for use at higher temps. Limited food service. Temperature Range: –20˚ F to +212˚ F	Excellent corrosion resistances. It can be used with greater range of liquids and gases than nylon or polyethylene. Good acid and chemical resistance.	• Can be repeatedly steam stabilized. • Not subject to environmental stress cracking. • Flexible Tubing
22PP 33PP 44PP 66PP 88PP	Black Black Black Black Black	For instrumentation, pneumatic and lubricant lines, process lines for gases, chemicals and solvents. Ideal for use at higher temps. Temperature Range: –20˚ F to +212˚ F	Excellent corrosion resistances. It can be used with greater range of liquids and gases than nylon or polyethylene. Withstands boiling sulfuric acid, concentrated hydrochloric acid up to the boiling point and saline solution up to 200˚ F.	• Can be repeatedly steam stabilized. • Not subject to environmental stress cracking. • Black tubing offers outstanding resistance to sunlight. • Flexible Tubing

Thermoplastic Chemical Resistance Chart

The information given below is based on reliable test results. Care should be taken to use this data as a guide only, and to take into account such variables as temperature, concentration and fluid contamination. Each application should be tested prior to its use in commercial systems. All ratings are given at 73˚ F. Contact Dayco Eastman for high temperature applications.

Key to Ratings:

A = Excellent. Little or no swelling or softening.
B = Good. Swelling or softening is moderate.
C = Fair. Conditional service may be expected.
D = Unsatisfactory. Not recommended.
NT = Not tested.

	Poly-Flo®	Impolene	Nylo-Seal®
A			
Acetaldehyde	D	B	B
Acetate solvents-crude	B	A	A
Acetate solvents-pure	B	A	A
Acetic Acid 20%	A	A	
Acetic Acid 50%	A	A	C
Acetic Acid-pure	B	A	D
Acetone	D	A	A
Acetophenone	B	A	NT
Acetylene	B	A	A
Air	A	A	
Alcohols	A	A	A
Aluminum Chloride	A	A	D
Aluminum Sulfate	A	A	
Alums	A	A	C
Ammonia (Aqueous, liquid and cold gas)			
Ammonium Acetate	A	A	
Ammonium Carbonate	A	A	
Ammonium Chloride	A	A	D
Ammonium Hydroxide	A	A	
Ammonium Nitrate	A	A	
Ammonium Phosphate	A	A	
Ammonium Sulfate	A	A	
Amyl Acetate	B	B	B
Amyl Alcohol	B	B	
Amyl Chloride	D	D	A
Aniline	A	B	C
Asphalt	A	A	A
B			
Barium Salts	A	A	
Beer	A	A	
Beet Sugar Liquors	A	A	A
Benzaldehyde	D	A	A
Benzene or Benzol	D	B	A
Benzoic Acid	A	A	
Borax	A	A	
Boric Acid	A	A	C
Brandy	A	A	B
Bromine Water, saturated	D	D	
Butane	C	B	A
Butter	A	A	
Butyl Acetate	D	C	B
C			
Calcium Bisulfite	A	A	D
Calcium Hypochlorite	A	A	D
Calcium Salts	A	A	
Cane Sugar Liquors	A	A	
Carbon Dioxide	A	A	
Carbon Dioxide (dry)	A	A	
Carbon Dioxide (wet)	A	A	C
Carbon Tetrachloride	D	C	
Carrot	A	A	
Chlorine	D	D	
Chloroform	D	B	D
Chocolate Syrup	A	A	
Chromic Acid	B	NT	B
Citric Acid	A	A	
Coke Oven Gas	B	A	
Copper Salts	B	A	
Copper Sulfate	B	A	
Core Oils	B	A	A
Cottonseed Oil	A	A	
Creosote	D	A	D
Cyclohexanol	C	A	B
Cyclohexanone	D	B	B
D			
Dibutyl Phthalate	C	A	A
Dichloroethylene	NT	A	C
Dioxane	D	C	A
E			
Ethers	D	D	A
Ethyl Acetate	A	A	A
Ethyl Alcohol 40%	B	A	D
Ethylene Glycol	A	A	
F			
Ferric Chloride	A	A	D
Ferric Sulfate	A	A	
Ferrous Chloride	B	A	
Ferrous Sulfate	A	A	
Formaldehyde	B	B	
Formic Acid	A	A	D
Freon	C	NT	NT
Furfural	D	D	
G			
Gasoline (sour)	D	D	A
Gasoline (refined)	D	D	A
Gelatin	A	A	
Glucose	A	A	
Glue	A	A	C
Glycerin or Glycerol	A	A	
H			
Hydraulic Fluid	D	C	A
Hydraulic Fluid (water/glycol)	A	A	A
Hydrochloric Acid 30%	A	A	D
Hydrochloric Acid 50%	A	A	D
Hydrocyanic Acid	A	A	D
Hydrofluoric Acid (dil.)	A	A	C
Hydrofluoric Acid 38-40%	A	A	D
Hydrofluoric Acid 50%	A	A	D
Hydrogen Fluoride	B	A	D
Hydrogen	A	A	
Hydrogen Peroxide	A	A	D
Hydrogen Sulfide (dry)	A	A	C
Hydrogen Sulfide (wet)	A	A	C

General Information

Thermoplastic Chemical Resistance Chart

	Poly-Flo®	Impolene	Nylo-Seal®
I			
Iodine (in alcohol)	D	A	A
Isopropanol	B	A	A
K			
Karo Syrup	A	A	
L			
Lacquer Solvents	B	A	A
Lactic Acid	A	A	
Lead Acetate	A	A	
Lime Sulfur	A	A	A
Linseed Oil	D	A	A
M			
Machine Oil	C	A	A
Magnesium Chloride	A	A	
Magnesium Hydroxide	A	A	
Magnesium Sulfate	A	A	
Maleic Acid	A	NT	C
Manganese Salts	A	A	
Mayonnaise	A	A	
Mercuric Chloride	C	C	
Mercury	A	A	
Methanol	A	A	
Methylene Chloride	C	C	
Milk	A	A	
Molasses	A	A	
N			
Natural Gas	C	B	A
Nickel Chloride	B	A	
Nickel Salts	A	A	
Nickel Sulfate	A	A	D
Nitric Acid (dil.)	B	A	D
Nitric Acid (med. conc.)	B	A	D
Nitric Acid (conc.)	D	A	D
Nitrobenzene	D	B	C
Nitrogen Oxides	D	A	B
Nitrous Acids	NT	C	D
O			
Oils, Vegetable	A	A	B
Oleic Acid	D	A	A
Olive Oil	A	A	A
Oxalic Acid	A	A	
Oxygen Gas	A	A	
P			
Palmitic Acid	B	A	D
Perchloric Acid	B	B	D
Petroleum Oils (sour)	B	B	
Pertoleum Oils (refined)	B	B	
Phenol	NT	NT	D
Phosphoric Acid 25%	A	A	
Phosphoric Acid 25-50%	A	A	
Phosphoric Acid 50-85%	A	A	C
Picric Acid	D	A	D
Potassium Carbonate	A	A	C
Potassium Chlorate	B	A	
Potassium Chloride	A	A	
Potassium Hydroxide	A	A	
Potassium Iodide	A	A	
Potassium Sulfate	A	A	
Propane	C	D	B
Pyridine	C	A	C

	Poly-Flo®	Impolene	Nylo-Seal®
R			
Rosin (light)	A	A	A
S			
Sauerkraut	A	A	
Shellac	A	A	A
Silver Nitrate	B	A	
Soap Solutions	B	A	
Sodium Bicarbonate	A	A	
Sodium Bisulfate	B	A	D
Sodium Bisulfite	A	A	
Sodium Borate	A	A	
Sodium Carbonate	A	A	
Sodium Chlorate	B	A	C
Sodium Chloride	A	A	
Sodium Cyanide	A	A	
Sodium Hydroxide	C	A	B
Sodium Hypochlorite	A	A	D
Sodium Metaphosphate	A	A	
Sodium Nitrate	A	A	
Sodium Perborate	A	A	
Sodium Phosphate	B	A	C
Sodium Silicate	A	A	
Sodium Sulfate	A	A	
Sodium Sulfide	A	A	
Sodium Sulfite	A	A	
Sodium Thiosulfate (hypo)	A	A	
Stearic Acid	C	A	A
Succinic Acid	A	A	
Sulfate Liquors	A	A	D
Sulfur	B	C	A
Sulfur Chloride	B	C	D
Sulfur Dioxide	A	A	D
Sulfuric Acid 10%	A	A	D
Sulfuric Acid 10-75%	C	A	D
Sulfuric Acid 75-98%	D	C	
Sulfurous Acid	A	A	D
T			
Tannic Acid	B	A	
Tar	D	A	
Tartaric Acid	A	A	
Tetrahydrofurane	D	B	B
Tetralin	D	D	A
Thiopen	D	B	A
Toluene or Toluol	C	B	A
Tomato	A	A	
Trichlorethylene	D	D	
Turpentine	D	B	A
U			
Urea	A	A	
V			
Varnish	A	A	A
Vinegar	A	A	
W			
Water (fresh)	A	A	
Water (salt)	A	A	
Whiskey	A	A	
Wines	A	A	
X			
Xylene or Xylol	D	C	B
Z			
Zinc Chloride	A	A	
Zinc Sulfate	B	A	D