High Quality Pressure

NYLAFLOW TUBING

AIRLITE PLASTICS CO.
2860 Bath Pike Nazareth, PA 18064
610.759.0280 • Fax: 610.759.0650
extrusion@airliteplastics.com

NYLAFLOW PRESSURE TUBING

Nylaflow nylon tubing is high quality pressure tubing, available in several formulations. For applications that require toughness, resilience, a small bend radius and high burst strength, Nylaflow pressure tubing is a high performance, long-lasting alternative to copper, rubber, aluminum and other types of plastic tubing. Nylaflow tubing is available with custom markings, cut to length and custom packaging.

Types T and H Nylaflow tubing are thin and heavy wall, general purpose tubing made from type 6/6 nylon. These types offer the highest strength and are FDA compliant for use in food or beverage handling applications.

Nylaflow LM tubing is a premium high flex tubing available in two types: natural or black, which exhibits improved light stability. Type LM offers excellent chemical resistance and low moisture absorption.

Standard Nylon 6/6 mechanical grade tubing is designed for low pressure mechanical application such as fluid and air transmission. It is an extremely tough, low friction, high flexibility tubing that can be used for cable protectors or in short pieces as small bushings and washers. S&L Plastics standard nylon is ideal for a wide variety of other mechanical applications where higher pressure ratings are not required. S&L Plastics tubing resists abrasion and wear and is better than aluminum or steel. It has an extremely smooth inner surface with a very low coefficient of friction. Nylon 6/6 is produced on a custom basis and is available in colors, with custom markings and cut to length.

Type LP Nylaflow tubing is a low pressure, general purpose type 6 nylon tubing with carbon added for UV stability.

Both Nylaflow and Standard tubing can be cut with a sharp knife and flared hot or cold. They are odorless, tasteless and non-corrosive.

ENGLISH SPECIFICATIONS

Part No.	O.D.	I.D.	Wall	Min. Bend Radius	O.D. Tolerance	Wall Tol.	Coil Length
Type H							
4TD2-03420*	1/8"	.079"	.023"	3/8"	+.002"–.004"	±.003"	1500'
4TD2-04420*	3/16"	.111"	.038"	5/8"	+.002"–.008"	±.003"	1000'
4TD2-05420*	1/4"	.150"	.050"	11/4"	+.002"–.008"	±.003"	500'
4TD2-06420*	5/16"	.188"	.062"	2"	+.002"–.008"	±.003"	250'
4TD2-07420*	3/8"	.225"	.075"	21/2"	+.002"–.010"	±.004"	250'
Type T							
4TD2-53420*	1/8"	.095"	.015"	5/8"	+.002"–.004"	±.003"	1500'
4TD2-53820*	5/32"	.106"	.025"	3/4"	+.002"–.004"	±.003"	1000'
4TD2-54420*	3/16"	.137"	.025"	1"	+.002"–.008"	±.003"	1000'
4TD2-55420*	1/4"	.190"	.030"	11/4"	+.002"–.008"	±.003"	500'
4TD2-56420*	5/16"	.242"	.035"	2"	+.002"–.008"	±.003"	250'
4TD2-57420*	3/8"	.295"	.040"	3"	+.002"–.010"	±.004"	250"
Type LM Natural							
4TE1-03420	1/8"	.095"	.015"	5/8"	+.002"–.004"	±.002"	1500'
4TE1-04420*	3/16"	.137"	.025"	1"	+.002"–.006"	±.003"	1000'
4TE1-05420*	1/4"	.180"	.035"	11/4"	+.002"–.008"	±.003"	500'
4TE1-07420	5/16"	.232"	.040"	2"	+.002"–.008"	±.003"	250'
4TE1-08420*	3/8"	.275"	.050"	3"	+.002"–.010"	±.004"	250'
4TE1-10420*	1/2"	.375	.0625"	41/2"	+.005"–.010"	±.004"	150'
Type LM Black							
4TE1-03425	1/8"	.095"	.015"	5/8"	+.002"–.004"	±.002"	1500'
4TE1-04425	3/16"	.137"	.025"	1"	+.002"–.006"	±.003"	1000'
4TE1-05425	1/4"	.180"	.035"	11/4"	+.002"–.008"	±.003"	500'
4TE1-07425	5/16"	.232"	.040"	2"	+.002"–.008"	±.003"	250'
4TE1-08425*	3/8"	.275"	.050"	3"	+.002"–.010"	±.004"	250'
4TE1-10425	1/2"	.375"	.0625"	41/2"	+.005"–.010"	±.004"	150'
Type LP							
4TC2-03420	1/8"	.095"	.015"	5/8"	+.002"–.008"	±.003"	1500'
4TC2-04420	3/16"	.137"	.025"	1"	+.002"–.006"	±.003"	1000'
4TC2-05420	1/4"	.190"	.030"	11/4"	+.003"–.011"	±.003"	500'
4TC2-06420	5/16"	.242"	.035"	2"	+.003"–.011"	±.003"	250'
4TC2-07420	3/8"	.295"	.040"	3"	+.003"–.016"	±.004"	250'
4TC2-09420	1/2"	.376"	.062"	41/2"	+.003"–.019"	±.004"	150'

*Stock sizes. All other sizes will have minimum quantities and set-up charges.

PROPERTIES OF NYLAFLOW AND STANDARD NYLON TUBING

	Nylaflow T (Type 6/6)	Nylaflow H (Type 6/6)	Nylaflow LM (Type 11 or 12)	Nylaflow LM (Type 11 or 12)	Nylaflow LP (Type 6)	Nylaflow Tubing (Type 6/6)
Color	Natural	Natural	Natural	Black	Black	Natural
Melting Point	500 ± 5ºF	500 ± 5ºF	Type11-365 ± 10ºF	Type 12-365 ± 10ºF	420 ± 13ºF	500 ± 5ºF
Water Absorption at Equilbrium (%) at Saturation (%)	 2.50 8.0	 2.50 8.0	 .9 1.9	 .9 1.9	 3.50 11.0	 2.50 8.0
Suggest Temp. Range (ºF)	-65 to +150	-65 to +150	-80 to +200	-80 to +200	-40 to +150	-65 to +150
Light Stabilized	No	No	No	Yes	Yes	No
Hoop Stress at 73ºF Bone Dry (psi)	7,500	7,500	2,500	2,500	6,000	7,500
Hoop Stress at 73ºF 50% R.H. (psi)	4,500	4,500	2,000	2,000	2,600	4,500
Hoop Stress at 73ºF Full Saturation (psi)	3,100	3,100	1,850	1,850	2,100	3,100
Material's Flexural Elastic Modulus at 73ºF. 50% R.H. (psi)	175,000 (conditioned)	175,000 (conditioned)	103,000	103,000	130,000	175,000 (conditioned)
Operating Pressure at 73ºF. 50% R.H. (psi)	250	625	250	250	175	Not Pressure Rated
Bursting Pressure at 73ºF 50% R.H. (psi)	1,000 Minimum	2,500 Minimum	1,000 Minimum	1,000 Minimum	700 Minimum	
Important Facts	Moderate cost. General Purpose nylon. Highest strength. Stiffest of all nylons. FDA compliant. Meets 3A Sanitary Standards. Carried in stock.	Moderate cost. General Purpose nylon. Highest strength. Stiffest of all nylons. FDA compliant. Meets 3A Sanitary Standards. Carried in stock.	Premium material. Excellent Flexibility. Best chemical resistance including resistance to ZnCl2: (zinc chloride). Lowest moisture pickup. Wide temperature range usage. Carried in stock.	Same as Natural except light stability improved.	General Purpose. Light stability.	Moderate Cost. General purpose nylon. Highest strength. Stiffest of all nylons. Meets 3A Sanitary Standards.
Typical Applications	Air lines, grease lines, vacuum lines, duit, hydraulic lines, high pressure gases.	Air lines, grease lines, vacuum lines, hydraulic lines, high pressure gases.	Automotive fuel lines, lubrication lines, vacuum lines, air lines.	Automotive Fuel lines, lubrication lines, vacuum lines, air lines.	General purpose tubing. Excellent for farm machinery.	Mechanical applications, such as con- small sleeve bearings, busings, insulators.
Chemical Resistance at 73ºF						
Acids	Good to pH-5	Good to pH-5	Good to pH-5	Good to pH-5	Good to pH-5	Good to pH-5
Alkalies	Good to pH-11	Good to pH-11	Good to pH-11	Good to pH-11	Good to pH-11	Good to pH-11
Hydrocarbons-aromatic	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent
Hydrocarbons-aliphatic	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent
Ketones	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent
Ethers	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent
Alcohols	Good	Good	Good	Good	Good	Good
Salts, neutral	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent
Freons	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent
Sunlight	Fair	Fair	Fair	Good	Good	Fair
Zinc chloride	Poor	Poor	Good	Good	Poor	Poor

Notes: Formula for calculating hoop stress of any nylon tube:

$S = P(d+t) / 2t$

S=hoop stress strength (psi)
d=inside diameter of tube (inches)
P=burst strength (psi)
t=wall thickness of tube (inches)