Nylon

Specifications

Temperature Range
-60˚F to +200˚F

Vacuum Rating
To 28" Hg

Diameter Tolerance
<1/2"± .004"
>1/2"± .005"

Hardness
78 Rockwell R

Tube Markings
FW Specifications

Working Pressure
4:1 Safety Factor

UV Stabilized
Yes

Resin Compliance
Meets UL94HB
Testing Requirements

Suggested Fittings
Push-In, Compression

Nylon tubing (also referred to as polyamide) can withstand higher temperatures, making it an ideal choice for a wide variety of applications. When compared to other Nylon resins, Freelin-Wade's tubing allows for a lighter weight wall, greater flexibility and smaller bend radius. It is also more corrosion resistant than other types of Nylon tubing because of its resistance moisture absorbtion. It's heat and UV stabilization makes it resistant to stress-cracking, so it works well in sunny areas. It is chemical resistant which makes it a good choice in areas where exposure to certain chemicals is a possibility.

Freelin-Wade manufactures nylon tubing from a variety of resins and there are any number of variations possible. We are happy to match any color you need, configure a coil, bond two tubes, print and cut to length. Freelin-Wade can make a nylon tube to meet your needs.

Features

- Strong, lightweight and flexible.
- Dimensionally stable.
- Heat and light stabilized.
- Resistant to corrosion and stress-cracking.

Nylon Colors

Any of our nylon tubing products listed on page 15 are available in the colors shown below. If not shown as a standard item, please allow 3 weeks to fulfill your order.

01 02 03 05 06 07 08 09 10 11 12

Part Number & Color Code	Packaging Unit Size	OD	ID	Wall	Standard Colors	Working Pressure 75°F/25°C	Working Pressure 150°F/65°C	lbs./ 100'	Bend Radius	Fitting
1J-247- 1A-247-	100' Bag 2500' Reel	1/8"	.079"	.023"	01 10	420 PSI	250 PSI	.35	3/8"	PI, C
1J-200- 1C-200- 1B-200- 1A-200-	100' Bag 500' Reel 1000' Reel 2500' Reel	1/8"	.093"	.016"	01 05 06 07 08 10	270 PSI	160 PSI	.25	1/2"	PI, C
1J-201- 1C-201- 1B-201- 1A-201-	100' Bag 500' Reel 1000' Reel 2500' Reel	5/32"	.106"	.025"	01 03 05 06 07 08 09 10 12	350 PSI	210 PSI	.51	1/2"	PI, C
1J-202- 1B-202- 1A-202-	100' Bag 500' Reel 2000' Reel	3/16"	.138"	.025"	01 05 06 07 10	260 PSI	160 PSI	.55	5/8"	PI, C
1J-214- 1A-214-	100' Bag 1000' Reel	1/4"	.125"	.062"	01 10	590 PSI	350 PSI	1.77	3/8"	PI, C
1J-203- 1B-203- 1A-203-	100' Bag 500' Reel 1000' Reel	1/4"	.170"	.040"	01 03 05 06 07 08 09 10	330 PSI	200 PSI	1.27	3/4"	PI, C
1J-204- 1B-204- 1A-204-	100' Bag 500' Reel 1000' Reel	1/4"	.180"	.035"	01 05 06 07 08 09 10	290 PSI	170 PSI	1.13	1"	PI, C
1J-205- 1A-205-	100' Bag 500' Reel	5/16"	.232"	.040"	01 05 06 07 08 10	240 PSI	140 PSI	1.64	1-1/2"	PI, C
1J-206- 1A-206-	100' Bag 500' Reel	3/8"	.275"	.050"	01 05 06 07 08 09 10	250 PSI	150 PSI	2.45	1-1/2"	PI, C
1J-207- 1A-207- 1AA-207-	100' Bag 250' Reel 500' Reel	1/2"	.375"	.062"	01 05 06 07 08 10	240 PSI	140 PSI	4.12	2-1/4"	PI, C
1J-213- 1AA-213-	50' Bag 250' Reel	5/8"	1/2"	.062"	01 10	170 PSI	100 PSI	5.30	3-1/4"	PI, C

Metric Sizes

Part Number & Color Code	Packaging Unit Size	OD mm	ID mm	Wall mm	Standard Colors	Working Pressure 75°F/25°C	Working Pressure 150°F/65°C	lbs./ 100'	Bend Radius	Fitting
1J-246- 1C-246- 1B-246- 1A-246-	100' Bag 500' Reel 1000' Reel 2500' Reel	3	1.8	.6	10	410 PSI	240 PSI	.33	6.3 mm	PI, C
1J-201- 1C-201- 1B-201- 1A-201-	100' Bag 500' Reel 1000' Reel 2500' Reel	4	2.7	.65	01 03 05 06 07 08 09 10 12	350 PSI	210 PSI	.51	12.7 mm	PI, C
1J-241- 1A-241-	100' Bag 1000' Reel	5	3	1	01 05 06 07 08 10	420 PSI	250 PSI	.94	9.5 mm	PI, C
1J-242- 1B-242- 1A-242-	100' Bag 500' Reel 1000' Reel	6	4	1	01 05 06 07 08 09 10	340 PSI	200 PSI	1.17	17 mm	PI, C
1J-243- 1A-243-	100' Bag 500' Reel	8	6	1	01 05 06 07 08 10	250 PSI	150 PSI	1.64	38 mm	PI, C
1J-244- 1A-244-	100' Bag 500' Reel	10	8	1	01 03 10	190 PSI	110 PSI	2.11	51 mm	PI, C
1J-245- 1A-245- 1AA-245-	100' Bag 250' Reel 500' Reel	12	10	1	01 10	150 PSI	90 PSI	2.55	76 mm	PI, C

Variations Available: Coiling • Colors • Cutting • Bonding • Printing • Packaging • Sizes

Resource Guide—Chemical Resistance Chart

This information was provided to Freelin-Wade by our suppliers and other sources. It is to be used only as a general reference guide to aid in the selection of products in which chemical and material compatibility issues are a factor. This guide is not intended as a complete nor conclusive database. Freelin-Wade does not guarantee these ratings since the resistance of a material can be greatly affected by the temperature, consistency, and presence of other chemicals. Ultimately, the consumer must determine the chemical compatibility of an item based on the conditions in which the product is being used.

Rating Scale

1= Little or no impact
2= Minor effect
3= Moderate effect
4= Severe effect

	PUR	PE	PVC	Nylon	Kynar
Acetic Acid, Glacial	4	2	4	-	1
Acetic Acid, 30%	4	1	4	2	1
Acetone	4	2	4	1	4
Acetylene	1	4	1	1	1
Alkazene	4	-	-	-	-
Aluminum Chloride (aq)	3	2	1	-	1
Aluminum Nitrate (aq)	3	-	2	-	1
Ammonia Anhydrous	4	2	1	-	4
Ammonia Gas (cold)	3	-	3	1	4
Ammonia Gas (hot)	4	-	-	1	4
Ammonium Chloride (aq) 40%	2	1	1	-	1
Ammonium Sulfate (aq)	1	1	1	1	1
Amyl Alcohol	4	2	1	-	1
Amyl Naphthalene	4	-	-	-	-
Animal Fats	1	-	-	-	-
Aqua Regia	4	2	3	-	-
Arsenic Acid	3	2	1	-	1
Asphalt	2	1	1	-	1
ASTM Fuel A	2	-	-	-	-
ASTM Fuel B	3	-	-	-	-
ASTM Fuel C	3	1	4	-	-
Barium Chloride (aq)	1	2	1	1	1
Beer	2	2	1	1	1
Beet Sugar Liquors	4	1	1	-	1
Benzene	3	4	3	1	1
Benzine	2	-	-	-	-
Blast Furnace Gas	4	-	-	-	-
Bleach Solutions	4	1	1	-	1
Borax	1	1	1	-	1
Boric Acid	1	1	1	-	1
Brake Fluid	4	-	-	-	1
Brine	2	-	3	-	1
Bromine Water	4	-	3	4	1
Bunker Oil	2	-	-	-	-
Butane	1	3	3	1	1
Butter	1	-	-	-	-
Butyl Alcohol (Butanol)	3	1	3	1	1
Butylene	4	1	1	-	1
Calcium Chloride (aq)	1	1	3	1	1
Calcium Hydroxide (aq)	2	1	2	-	1
Calcium Nitrate (aq)	1	-	1	1	1
Calcium Sulfide (aq)	1	-	-	-	-
Cane Sugar Liquors	4	-	1	-	1
Carbolic Acid	3	4	3	-	-
Carbon Dioxide	1	2	1	-	1
Carbonic Acid	4	2	1	-	1
Carbon Monoxide	1	2	1	-	1
Carbon Tetrachloride	4	4	4	3	1
Castor Oil	1	1	1	-	1
Chlorine (dry)	4	3	4	4	1
Chlorine (wet)	4	3	-	4	1
Chloroform	4	4	4	3	1
Chlorox	4	-	-	-	-
Chromic Acid 50%	4	1	4	4	1
Citric Acid	1	1	2	1	1
Coal Tar (Creosote)	3	-	-	-	-
Coconut Oil	2	1	1	-	1
Cod Liver Oil	1	1	1	-	-
Coke Oven Gas	4	-	-	-	-
Copper Chloride (aq)	1	2	1	-	1
Copper Cyanide (aq)	1	2	1	-	1
Corn Oil	1	1	2	-	1
Cotton Seed Oil	1	1	2	-	1
Creosol (Methyl Phenol)	4	4	4	4	1
Cychlohexane	1	4	4	1	1
Denatured Alcohol	4	-	-	-	-
Detergent Solution	3	1	1	-	-
Diesel Oil	2	3	1	-	-
Dioxane	4	3	-	-	4
Dowtherm Oil	3	-	-	-	-
Dry Cleaning Fluids	4	-	-	-	-
Ethane	1	-	1	-	-
Ethyl Acrylate	4	-	-	-	1
Ethyl Alcohol (Ethanol)	4	2	3	3	1
Ethyl Benzine	4	-	-	-	-
Ethyl Cellulose	2	-	-	-	-
Ethyl Chloride	4	4	4	-	1
Ethyl Ether	3	4	4	-	1
Ethylene Chloride	4	4	4	-	-
Ethylene Glycol[5] (Anti-Freeze)	2	1	1	1	1
Ethylene Oxide	4	3	3	1	1
Ethylene Trichloride	4	4	-	-	-
Ferric Chloride (aq)	1	2	1	-	1
Ferric Nitrate (aq)	1	2	1	-	1
Ferric Sulfate (aq)	2	1	1	-	1
Fluroine (Liquid)	4	3	4	4	1
Formaldehyde (RT)	4	2	1	1	1
Formic Acid	4	2	1	4	1
Freon 11	4	3	1	-	-
Freon 12	1	1	1	1	-
Freon 22	4	-	1	1	-
Fuel Oil (Bunker 'C')	2	3	1	-	1
Gasoline (100 Octane, High Test)	3	4	3	1	1
Glue	1	1	3	-	1
Glycerin (Glycerol)	1	1	1	1	1
Glycols	4	-	-	1	-
Green Sulfate Liquor	1	-	-	-	-
Hexane	2	4[1]	2[2]	-	1
Hydraulic Oil	1	1-3	1	-	-
Hydrochloric Acid (cold) 37%	4	2	2	4	1
Hydrochloric Acid (hot) 37%	4	-	-	4	1
Hydrofluroic Acid (Conc.) (cold)	4	2	-	-	1
Hydrofluroic Acid (Conc.) (hot)	4	-	-	-	1
Hydrogen Gas	1	1	1	1	1
Isobutyl Alcohol	3	1	-	-	1
Isooctane	2	3	1	-	1
Isopropyl Acetate	4	3	4	-	-
Isopropyl Alcohol (Isopropanol)	3	1	-	1	1
Isopropyl Ether	2	1	2	-	1
Kerosene	1	4	2	1	1

	PUR	PE	PVC	Nylon	Kynar
Lacquers	4	1	4	-	-
Lacquer Solvents	4	1	3	-	-
Lard	1	1	1	-	1
Lavender Oil	4	-	-	-	-
Lead Acetate (aq)	4	1	1	-	1
Linseed Oil	2	3	1	1	1
Liquified Petroleum Gas	1	-	-	1	-
Lubricating Oils	1-2[3]	4	2	1	1
Lye	4	1-4[4]	1-2	-	-
Magnesium Chloride (aq)	1	2	1	1	1
Magnesium Hydroxide (aq)	4	2	1	-	1
Mercury	1	1	1	1	1
Methane	3	-	2	1	1
Methyl Acetate	4	2	4	1	1
Methyl Acrylate	4	-	-	-	1
Methyl Alcohol (Methanol)	4	1	1	1	1
Methyl Butyl Ketone	4	-	1	-	-
Methyl Chloride	4	4	4	1	1
Methylene Chloride	4	4	4	-	1
Methyl Ethyl Ketone	4	2	4	1	4
Methyl Isobutyl Ketone	4	3	4	1	4
Milk	4	1	1	1	1
Mineral Oil	1	3	1	1	1
Motor Oil 20W, 10W40	2	3	2	1	1
Naphtha (Lighter Fluid)	2	4	1	1	1
Naphthalene (Moth Repellent)	2	2	4	1	1
Natural Gas	2	-	1	-	1
Neatsfoot Oil	1	-	-	-	-
Nitric Acid 70%	4	2	-	4	1
Nitric Acid (Dilute) 10%	3	2	1	4	1
Nitroethane	4	-	-	-	1
N-Octane	4	1	-	-	1
Oleic Acid	2	1	3	1	1
Oleum Spirits	3	4	4	-	4
Olive Oil	1	1	-	-	1
Oxygen (cold)	1	-	-	1	1
Oxygen (200-400F)	4	-	-	-	-
Paint Thinner, Duco	4	-	-	-	-
Perchloric Acid	4	1	3	-	1
Perchloroethylene	4	4	3	3	1
Petroleum - Below 250F	2	3	-	-	1
Petroleum - Above 250F	4	-	-	4	-
Phenol (Carbolic Acid)	3	2	3-4	4	1
Phenyl Ethyl Ether	4	-	-	-	-
Phosphoric Acid - 45%	4	1	2	2	1
Pickling Solution	4	-	-	-	-
Picric Acid	2	1	4	3	1
Potassium Acetate (aq)	4	-	-	-	1
Potassium Chloride (aq)	1	2	1	-	1
Potassium Cyanide (aq)	1	2	1	-	1
Potassium Hydroxide (aq)	4	1	1	3	4
Producer Gas	1	1	1	-	-
Propane	1	4	1	1	1
Propyl Alcohol (Propanol)	4	1	1	-	1
Propylene	4	-	2	-	-
Propylene Glycol (Anti-Freeze)	3	1	3	2	1
Propylene Oxide	4	2	-	-	4
Pydraul, 10E, 29 ELT	4	-	-	-	-
Pydraul 30E, 50E, 65E	4	-	-	-	-
Pydraul, 115E	4	-	-	-	-
Pydraul 230E, 312C, 540C	4	-	-	-	-
Rapeseed Oil	2	4	-	-	-
RJ-1 (MIL-F-23338 B)	1	-	-	-	-
RP-1 (MIL-F-25576 C)	1	-	-	-	-
Salt Water	2	1	1	1	1
Sewage	1	-	-	-	1
Silicate Esters	1	-	-	-	-
Silicone Oils	1	1	1	-	1
Silver Nitrate	1	1	1	-	1
Skydrol 500	4	-	-	-	-
Skydrol 700	4	-	-	-	-
Soap Solutions	3	4	1	1	-
Sodium Chloride (aq)	1	1	1	1	-
Sodium Hydroxide (aq)	4	1	1	2	4
Sodium Peroxide (aq)	4	1	2	-	1
Sodium Phosphate (aq)	1	-	-	-	1
Sodium Sulfate (aq)	1	1	1	-	-
Soy Bean Oil	2	1	1	-	1
Stoddard Solvent	1	3	3	-	-
Styrene (Monomer)	4	-	4	1	1
Sucrose Solution	4	2	-	-	-
Sulfuric Acid (Dilute Battery Acid)	3	1	1	-	1
Sulfuric Acid (Conc)	4	2	4	-	1
Sulfuric Acid (20% Oleum)	4	-	4	-	4
Sulfurous Acid	4	2	1	-	-
Tannic Acid	4	1	1	-	1
Tetrochlorethylene	4	2	4	-	-
Toluene (Toluol)	4	3	4	1	1
Transformer Oil	2	-	2	-	-
Transmission Fluid Type A	2	-	-	-	-
Trichloroethane	4	4	3	3	1
Trichloroethylene	4	4	4	3	1
Turbine Oil	1	3	1	1	-
Turpentine	4	4	4	1	1
Varnish	3	3	4	-	1
Vinegar	2	1	1	1	1
Vinyl Chloride	4	4	4	-	1
Water	1	1	1	1	1
Whiskey, Wines	2	1	1	1	1
White Oil	1	-	-	-	-
Wood Oil	3	-	-	-	-
Xylene	4	4	4	1	1
Zinc Acetate (aq)	4	-	-	-	1
Zinc Chloride (aq)	2	1	1	1	1

1 Petroleum Base **2** Synthetic Base =1, Petroleum Base = 3
3 SAE 10, 20, 30, 40, 50 = 1, Petroeum = 2
4 Calcium Hydroxide & Potassium (Hydroxide=1, Sodium Hydroxide=4) **5** See Propylene Glycol **6** See Ethylene Glycol