

# Nylon: D.O.T., High Pressure, & Super Soft

## Specifications

### Temperature Range

HP: -60°F to +200°F  
SS: -40°F to +180°F  
DOT: -60°F to +200°F

### Vacuum Rating

All: To 28" Hg.

### Diameter Tolerances

HP: < OD .5": ±.004"  
> OD .5": ±.005"  
SS: ±.004"  
DOT: 1/8" - 1/4": ±.003"  
5/16": ±.004"

### Hardness

HP: 108 Rockwell R  
SS: 57 Shore D  
DOT: 78 Rockwell R

### Tube Markings

HP & SS: FW Specs  
DOT: DOT Specs

### Working Pressure

4:1 Safety Factor

### UV Stabilized

All: Yes

### Resin Compliance

Meets UL94HB Testing Requirements

### Suggested Fittings

Push-In, Compression

## D.O.T. Nylon 11

**D**.O.T. tubing is made using our standard Nylon. Type "A" Air Brake tubing is ideal for use on vehicles for instrumentation and pneumatic accessories connected to the air brake system. Type "A" Air Brake tubing is non-reinforced and meets SAE J844 specifications and is available in a variety of colors.



D.O.T. Nylon

## High Pressure Nylon 11

**F**reelin-Wade's High Pressure Nylon tubing is made from a semi-rigid compound that has outstanding tensile strength and chemical resistance, making it the ideal choice for chemical and oil processing lines, tool lubricating systems and other applications that require a high quality Nylon material with much higher burst ratings.

## Super Soft Nylon 11

**F**reelin-Wade's Super Soft Nylon 11 tubing is formulated with a special compound to significantly increase flexibility while retaining the outstanding qualities of our standard Nylon tubing. This advantage makes our Super Soft Nylon 11 the ideal choice where media and environmental conditions make polyurethane impractical.

- More flexible than standard Nylon tubing
- Heat and light stabilized.

## D.O.T. Tubing

Part Number & Color Code	Packaging Unit Size	OD	Wall	Standard Colors	Burst Pressure 75°F/25°C	lbs./100'	Bend Radius	Fitting
1J-220- ____	100' Bag	1/8"	.023	01 05 07 08 09	1000 PSI	.34	3/8"	PI, C
1C-220- ____	500' Reel							
1B-220- ____	1000' Reel							
1A-220- ____	2000' Reel							
1J-221- ____	100' Reel	5/32"	.032	01 05 06 07 09	1200 PSI	.57	1/2"	PI, C
1C-221- ____	500' Reel							
1B-221- ____	1000' Reel							
1A-221- ____	2000' Reel							
1J-222- ____	100' Bag	3/16"	.036	01 05 06 08 09	1200 PSI	.77	3/4"	PI, C
1B-222- ____	500' Reel							
1A-222- ____	2000' Reel							
1J-223- ____	100' Bag	1/4"	.040	01 05 06 07 08 09	1200 PSI	1.21	1"	PI, C
1B-223- ____	500' Reel							
1A-223- ____	1000' Reel							
1J-225- ____	100' Bag	5/16"	.040	01 05 07 09	1000 PSI	1.57	1-1/4"	PI, C
1A-225- ____	500' Reel							

### Variations Available:

Coiling • Colors • Cutting • Bonding • Printing • Packaging • Sizes

## High Pressure Nylon 11

Part Number & Color Code	Packaging Unit Size	OD	ID	Wall	Standard Colors	Working Pressure 75°F/25°C	lbs./100'	Bend Radius	Fitting
1J-280- ____ 100' Bag	100' Bag	1/8"	.073"	.026"	10	800 PSI	.39	5/16"	PI, C
1B-280- ____ 500' Reel	500' Reel								
1A-280- ____ 2500' Reel	2500' Reel								
1J-281- ____ 100' Bag	100' Bag	3/16"	.109"	.039"	10	800 PSI	.88	7/16"	PI, C
1B-281- ____ 500' Reel	500' Reel								
1A-281- ____ 2000' Reel	2000' Reel								
1J-282- ____ 100' Bag	100' Bag	1/4"	.150"	.050"	01 10	800 PSI	1.51	9/16"	PI, C
1B-282- ____ 500' Reel	500' Reel								
1A-282- ____ 1000' Reel	1000' Reel								
1J-283- ____ 100' Bag	100' Bag	3/8"	.225"	.075"	10	800 PSI	3.39	1"	PI, C
1A-283- ____ 500' Reel	500' Reel								
1A-284- ____ 250' Reel	250' Reel								
1AA-284- ____ 500' Reel	500' Reel	1/2"	.350"	.075"	10	530 PSI	4.81	2"	PI, C
<b>Variations Available:</b>					<b>Coiling • Colors • Cutting • Printing • Packaging • Sizes</b>				

### Super Soft Nylon

## Super Soft Nylon 11

Part Number & Color Code	Packaging Unit Size	OD	ID	Wall	Standard Colors	Working Pressure 75°F/25°C 150°F/65°C	lbs./100'	Bend Radius	Fitting
1J-260- ____ 100' Bag	100' Bag	1/8"	.093"	.016"	01 10	200 PSI 120 PSI	.25	9/16"	PI, C
1C-260- ____ 500' Reel	500' Reel								
1B-260- ____ 1000' Reel	1000' Reel								
1A-260- ____ 2500' Reel	2500' Reel								
1J-261- ____ 100' Bag	100' Bag	5/32"	.106"	.025"	01 10	220 PSI 130 PSI	.45	9/16"	PI, C
1C-261- ____ 500' Reel	500' Reel								
1B-261- ____ 1000' Reel	1000' Reel								
1A-261- ____ 2500' Reel	2500' Reel								
1J-264- ____ 100' Bag	100' Bag	1/4"	.180"	.035"	01 10	180 PSI 110 PSI	1.04	1"	PI, C
1B-264- ____ 500' Reel	500' Reel								
1A-264- ____ 1000' Reel	1000' Reel								
1J-265- ____ 100' Bag	100' Bag	5/16"	.232"	.040"	01 10	170 PSI 100 PSI	1.52	1-1/4"	PI, C
1A-265- ____ 500' Reel	500' Reel								
1J-266- ____ 100' Bag	100' Bag	3/8"	.275"	.050"	01 10	160 PSI 90 PSI	2.26	1-5/8"	PI, C
1A-266- ____ 500' Reel	500' Reel								
1J-267- ____ 100' Bag	100' Bag	1/2"	3/8"	.062"	01 10	140 PSI 80 PSI	3.80	2-1/2"	PI, C
1AA-267- ____ 500' Reel	500' Reel								

### Metric Sizes

Part Number & Color Code	Packaging Unit Size	OD mm	ID mm	Wall mm	Standard Colors	Working Pressure 75°F/25°C 150°F/65°C	lbs./100'	Bend Radius	Fitting
1J-271- ____ 100' Bag	100' Bag	5	3	1	10	310 PSI 180 PSI	.95	12.7	PI, C
1B-271- ____ 500' Reel	500' Reel								
1A-271- ____ 1000' Reel	1000' Reel								
1J-272- ____ 100' Bag	100' Bag	6	4	1	01 10	240 PSI 140 PSI	1.10	19.0	PI, C
1B-272- ____ 500' Reel	500' Reel								
1A-272- ____ 1000' Reel	1000' Reel								
1J-273- ____ 100' Bag	100' Bag	8	6	1	01 10	160 PSI 100 PSI	1.70	23.8	PI, C
1A-273- ____ 500' Reel	500' Reel								
1J-274- ____ 100' Bag	100' Bag	10	8	1	01 10	120 PSI 70 PSI	2.20	28.6	PI, C
1A-274- ____ 500' Reel	500' Reel								
1J-275- ____ 100' Bag	100' Bag	12	10	1	01 10	90 PSI 50 PSI	2.80	38.0	PI, C
1AA-275- ____ 500' Reel	500' Reel								

**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	2	-	-	-
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	-	-
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
Cyclohexane	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 Benzene	4	-	-	-	-
Ethyl Cellulose	2	-	-	-	-
Ethyl Chloride	4	4	4	-	1
Ethyl Ether	3	4	4	-	1
Ethylene Chloride	4	4	4	-	-
Ethylene Glycol <sup>2</sup> (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
Fluorine (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 <sup>1</sup>	2 <sup>2</sup>	-	1
Hydraulic Oil	1	1-3	1	-	-
Hydrochloric Acid (cold) 37%	4	2	2	4	1
Hydrochloric Acid (hot) 37%	4	-	-	4	1
Hydrofluoric Acid (Conc.) (cold)	4	2	-	-	1
Hydrofluoric Acid (Conc.) (hot)	4	-	-	-	1
Hydrogen Gas	1	1	1	1	1
Isobutyl Alcohol	3	1	-	-	1
Isocetane	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
Lubrificated Petroleum Gas	1	-	-	1	-
Lubricating Oils	1-2 <sup>3</sup>	4	2	1	1
Lye	4	1-4 <sup>4</sup>	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	-	-	-	-
RE-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
Tetrachlorethylene	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, Petroleum = 2

4 Calcium Hydroxide & Potassium (Hydroxide=1, Sodium

Hydroxide=4) 5 See Propylene Glycol 6 See Ethylene Glycol