

Freelin-Wade Company sets the standard for quality plastic tubing. Add our industry leading manufacturing expertise, rapid delivery, limitless product variations, and extensive value added services and we will satisfy any of your plastic tubing requirements. Our customer service team is ready to help you find exactly the right tubing solution for your project. Find out how easy it is to do business with Freelin-Wade. Call us today.

Everything in this catalog is available to ship within 24 hours of your order – many items will ship the same day.





No part of this publication may be reproduced, either without specific consent from the Freelin-Wade Company.

Items in this catalog may vary in appearance from what is pictured or illustrated. Always request a manufactured product sample to assure accuracy.

Product descriptions, specifications and availability may change without notice.

Coilhose Pneumatics East Brunswick, NJ

Our parent company offers an array of compressor accessories



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Polyurethane PUR	Polyurethane Our ether-based Fre-Thane® is our most versatile tubing. Highly flexible with excellent memory it is available in a rainbow of colors. Fre-Thane also has the most variation possibilities of any of our tubing.	PUR 95A	
Polyethylene PE	Available in both low density and linear low density. Our polyethylene is the perfect choice when you need flexibility combined with chemical resistance and/or FDA compliance.	LDPE11 LLDPE12	
PVC 13	PVC Clear, lightweight and highly flexible, PVC is the choice for hospital and food grade applications. Available in standard tubing and also in a reinforced hose.	PVC Reinforced PVC	
Nylon 11	Nylon 11 Freelin-Wade's strong, light leight and flexible Nylon 11 is a great choice when you need tubing that resists heat, light and corrosion. We call it "environmentally advantaged" because it's maximum castor beans, an all-natural, renewable resource.	Standard 14 Metric 15 High Pressure 16 D.O.T. 16 Super Soft 17	
Specialty	Freelin-Wash manufactures a variety of tubing options including Kynar®, FEP, Weld Spatter Resistant, Static Dissipative and Multi-Bore. We also manufacture the industry leading Multi-Color Ribbon (MCR).	Kynar® PVDF 18 FEP 19 MCR 20 Static Dissipative 22 Multi-Bore 24 Weld Spatter 25	
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Variations

Coiling



Variations are easy and there is no minimum order quantity. Freelin-Wade set the industry standard for fast turnaround.

his catalog describes our array of in-stock tubing, hoses and accessories. In addition, we also do what we call "variations." Most variations involve taking our in-stock tubing and personalizing it to our customer's specifications. This includes coiling, bonding, cutting, special packaging or printing.

Because we are a manufacturer, there are even more variations possible. Specifically, if there is a custom size, shape or color that you need, we'll make it.

Look for this bar below nearly all product specifications. It tells you what variations are available for that particular product line.

Variations Available:

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

Coiling

A coil is an excellent way to keep your workstations organized and safe while maximizing working length. We offer several standard coils in this catalog but it's easy for us to make a variation. Just pick a tube from this catalog and have us coil it. Refer to page 38 for a worksheet that will get you started designing your coil variation.

Colors

Colors

In addition to our 28 stock colors, it's easy for us to match virtually any color you can dream up. We extrude a rainbow of personalized colors for our customers every day. Pick your color from the Pantone® color directory or just send us a swatch of what you want us to match. It's simple, and we're the fastest in the industry at turning color variations around. Here is our standard color key:









^{*}Pantone® is a registered trademark of Pantone, Inc.

Cutting

We have the right equipment and are set up to precisely cut our tubing in an efficient and cost-effective manner. If you need your tubing cut into specific lengths then save time, money and reduce waste by having us cut the tubing for you.

Variations

Variations

Bonding

Freelin-Wade has developed a special bonding process that can combine two or more tubes of any size and color. Just pick your tubing from this catalog and have us bond them. It will make your work area more organized and simplify the task of line tracing. Bonding also makes your lines look more professional and user-friendly.

Packaging

Our standard packaging process is to put short lengths in bags while longer lengths come on reels or in boxes. We can package differently though. Just ask!

Standard Packaging Options

- Standard Bulk Cardboard Reel 21" diameter x 6" wide with 1" I.D. center hub.
- AA Double Wide Bulk Cardboard Reel Same size as "A" reel except 12" wide with an open hub.
- **Medium Plastic Reel** 10.5" diameter x 6" wide with 3/4" I.D.
- Dispenser Box
- E, F Cut Lengths
- Plastic Bag



- **Dispenser Box** Containing 250' of tubing



Freelin-Wade can print your custom specs on any order over 5,000 feet for free, or a nominal charge for smaller orders. The print is usually text but we also have graphics capabilities. Consider having us print your logo or other graphic on your tubing.

Sizes

Don't see the O.D. or I.D. that you need? We have most dies already made, as well as an in-house die shop. We're happy to extrude exactly the tube that you need.

Bundling & Assembly

If you want to route wire with your tubing or bundle a variety of tubes and wires together, ask us how we can help. For short lengths, we can pull the tubing and wire through the jacket. For longer lengths we can extrude a PVC jacket over the top.

Industry-Leading Turnaround Time

Everything in this catalog is available to ship within 24 hours of your order - many items will ship the same day. Our general lead times for variations are:

- Coil variation using catalog tubing next day
- Cut lengths using catalog tubing 3 days
- Bonding variation using catalog tubing 2 weeks
- Custom extrusion 3 weeks



Bonding



Assembly





Our ether-based Fre-Thane® is our most versatile tubing. Highly flexible with excellent memory, it has the most variation possibilities of any of our tubing and is available in a rainbow of colors.

• Extremely flexible with excellent memory.

- Kink & abrasion resistant.
- Low gas permeability, extractables and compression set.
- Resistant to chemicals, water, fuel, oil and fungus.
- Transparent and opaque colors.

olyurethane was invented in 1937 by German chemist, Friedrich Bayer. His first fibers, named Perlon U, gained popularity during World War II as a replacement for rubber. Its first commercial application was as a thread to make lightweight, stretchable fabric, spandex.*

Polyurethane is comprised of two basic materials, isocyanate and polyol. Since Bayer's invention, polyurethane polymers have been improved with various additives to enhance its qualities and make it more resistant to heat and light.

There are two general classes of polyurethane and both are commonly found in the market: ether base and ester-base. Chemically, these are made from two different polyol alcohols that cause similar, but different reactions in the isocyanate. From the user's standpoint, the ester-based polymer is less expensive however it degrades when exposed to moisture. Because of this, we manufacture our Fre-Thane® polyurethane tubing using the ether-based material.

Freelin Wade's Fre-Thane has a high resistance to abrasion while being highly flexible and kink resistant. Its most notable quality though is its memory." Fre-Thane will stretch and flex but always return to its original shape.

Freelin-Wade began manufacturing polyurethane tubing in 1980 and it remains our core product today. It is available in 28 in-stock colors and a virtually infinite number of color variations. Fre-Thane is Freelin-Wade's most versatile product, with more options and variations available than with any other tubing.

* Source: www.madehow.com

Specifications

Temperature Range

All Diameters: -40°F to +165°F

Vacuum Rating

Polyurethane

85A-95A: To 28" Hg.

70: To 20" Hg.

Diameter Tolerances

1/8" - 9/16": ±.005" 3/4": ±.007" Metric: ±.127 mm

Tube Markings: None

Working Pressure: 3:1 Safety Factor UV Stabilized: 95A & 85A

Base Resin Compliance

95A: NSF61,

Meets UL94HB

90A: NSF61, FDA 85A: NSF61,

Meets UL94HB,

USPVI

70A: Meets UL94HB

Recommended Fittings

95A: Barb, Push-In, F 90A: Barb 85A: Barb

70A:

Request a Quote or Find a Distributor: 888-373-9233

www.freelin-wade.com

Fre-Thane® 954 Polyurethane

		UHI	0.5							
Part Number & Color Code	Packaging Unit Size	0.D.	I.D.	Wall	Standard Colors	Working F @75°F/25°C		lbs./ 100'	Bend Radius	Fitting
1J-157 1L-157 1C-157 1B-157 1A-157	50' Bag 250' Box 500' Reel 1000' Reel 2500' Reel	1/8"	.066"	.030"	① 04 05 05 07 08 09 10:(11) 12 14 25 26 27 28 37	255 PSI	100 PSI	.44	1/4"	B, Pl
.J-156 .C-156 .B-156 .A-156	100' Bag 500' Reel 1000' Reel 2500' Reel	5/32"	3/32"	.031"	1 2 2 2 2 2 3 7	210 PSI	85 PSI	.62	3/8"	B, Pl
1J-107 1B-107 1A-107	100' Bag 1000' Reel 2000' Reel	3/16"	.107"	.040"	1 07 : 10: 37	220 PSI	90 PSI	.92	3/8"	B, Pl
1J-169 1B-169 1A-169	100' Bag 500' Reel 1000' Reel	1/4"	1/8"	.062"	1) (4) (5) (6) (7) (8) (9) (10) (11) 26 27 29	265 PSI	105PS	1.83	1/2"	B, Pl
1J-151 1B-151 1A-151	100' Bag 500' Reel 1000' Reel	1/4"	.160"	.045"	1 2 25 26 27 28 37 46	175 PS	70 PSI	1.44	1/2"	B, PI, FX
l J-152 l A-152	100' Bag 500' Reel	3/8"	.245"	.065"	① 04 05 06 07 08 09:10:11 25 27 28 37 45 46	√0 PSI	70 PSI	3.15	7/8"	B, PI, FX
IJ-161 IA-161	50' Bag 250' Reel	15/32"	5/16"	.079"	00050708:10:11) 2746	155 PSI	60 PSI	4.83	1-1/8"	B, Pl
lJ-166 lA-166	50' Bag 250' Reel	1/2"	.320"	.090"	00 05 07 08:10:27 37	175 PSI	70 PSI	5.77	1-1/8"	B, Pl
IJ-163 IA-163	50' Bag 200' Reel	9/16"	3/8"	.094"	01 05 06 07 08 10; 27	155 PSI	60 PSI	6.85	1-3/8"	B, FX
IA-176 IE-176-	150' Reel Cut Length	3/4"	.467"	.142"	0 6 7 1 27	175 PSI	70 PSI	13.47	1-1/2"	B, FX

Metric sized Fre-Thane 95A Polyurethane is on page 8

If you a entering two or more colors of tubing, consider ordering it as a Multi-Color



Fre-Thane® 95A Metric Sized Polyurethane

						IIO IIIUIIO JUA	MOUIO	OILUU I	UIJU	HULLI	1110
	Part Number & Color Code	Packaging Unit Size	O.D. mm	I.D. mm	Wall mm	Standard Colors	Working @75°F/25°C	Pressure @150°F/65°C	lbs./ 100'	Bend Radius	Fitting
Polyurethane	1J-171 1C-171 1B-171 1A-171	100' Bag 500' Reel 1000' Reel 2500' Reel	3	1.8	.6	① (10: 37	230 PSI	90 PSI	.35	6.4 mm	B, Pl
PUR	1J-156 1C-156 1B-156 1A-156	100' Bag 500' Reel 1000' Reel 2500' Reel	4	2.4	.8	① ② 4 (5 (6) (7) (8 (9) 10) (1) (1) (2 5 26 27 28 37	210 PSI	85 PSI	.62	9.5 mm	B, Pl
	1J-158 1B-158 1A-158	100' Bag 500' Reel 1000' Reel	6	4	1	(1) (4) (5) (6) (7) (8) (9) (10) (11) 25 26 27 37	160 PSI	65 PSI	1.21	12.7 mm	B, Pl
	1J-159 1A-159	100' Bag 500' Reel	8	5	1.5	① 05 06 07 08 : 10 : 10 25 27 37 46	190 PSI	75 PSI	2.36	19 mm	B, Pl
	1J-160 1A-160	50' Bag 500' Reel	10	6.5	1.75	01 05 06 07 08:10:27	170 PS	70 PSI	3.51	22.2 mm	B, Pl
	1J-161 1A-161	50' Bag 250' Reel	12	8	2	① ① ① 08 ① ① ② 46	(155 PSI	60 PSI	4.83	28.6 mm	B, PI
						· · · · · · · · · · · · · · · · · · ·	O	Va	riatio	ns Availa	ible:

We can coil any polyurethane tube. It's a great way to keep your workplace organized and clutter free.

Fre-Thane® 90A Polyurethane

Part Number & Color Code	Packaging Unit Size	0.D.	I.D.	Wall	Standard Colors	Working I @75°F/25°C		lbs./ 100'	Bend Radius	Fitting
1J-132 1B-132 1A-132	100' Bag 500' Reel 1000' Reel	1/4"	.159"	.046"	(1) 14 (5) (6) (7) (8) (9) (10) (11) 14 (25) (27)	135 PSI	55 PSI	1.43	5/8"	В
1J-045 1B-045 1A-045	100' Bag 500' Reel 1000' Reel	1/4"	,1 ₹0"	.040"	0) 65 07 08 (15) 27	115 PSI	45 PSI	1.29	3/4"	B Low Pressure Only
1J-153 1A-153	100' Bag 1000' Reel	1/4"	3/16"	.031"	(10)	90 PSI	35 PSI	1.06	1-1/8"	B Low Pressure Only
1J-005 1B-005 1A-005	100' Bag 250' Reel 500' Reel	3/8"	.245"	.065"	① (4) (5) (6) (7) (8) (9) (10) (11) (14) 25 (26) (27) (28) (48) (9)	125 PSI	50 PSI	3.1	3/4"	В
1J-111 1A-111	50' Bag 250' Reel	1/2"	3/8"	.062"	0) 65 07 08 :105:	90 PSI	35 PSI	4.2	2"	B Low Pressure Only
							Va	ariatio	ns Ava	ilable:

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

Fre-Thane® 854 Polyurethane

Color Code Unit Size	0.D.	I.D.	Wall	Standard Colors		Pressure @150°F/65°C	lbs./ 100'	Bend Radius	Fitting
1J-013 50' Bag 1L-013 250' Box 1C-013 500' Reel 1B-013 1000' Reel 1A-013 2500' Reel	,	.066"	.030"	① ② (4 (5) (6) (7) (8 (9) (10) (11) (12 14 25 26 27 28 29 32 45 46	135 PSI	55 PSI	.43	3/16"	В
1J-134 100' Bag 1C-134 500' Reel 1A-134 2500' Reel		3/32"	.031"	:10:	115 PSI	45 PSI	.60	3/8"	В
1J-030 100' Bag 1C-030 500' Reel 1B-030 1000' Reel 1A-030 2500' Reel	5/32"	5/64"	.039"	① ② (4 (5 (6 (7 (8 (9 10 (1) (1) (1) (1) (2 (2 (5 (2 (7 (2 (8 (2 (9 (3 (4 (5 (4 (4 (4 (4 (4 (4 (4 (4 (4 (4 (4 (4 (4	155 PSI	60 PSI	.70	3/8"	В
1J-194 100' Bag 1B-194 500' Reel 1A-194 2000' Reel		1/8"	.031"	10 (10):	85 PSI	35@\$.74	1/2"	B Low Pressure Only
1J-025 50' Bag 1D-025 100' Box 1B-025 500' Reel 1A-025 1000' Reel		1/8"	.062"	① ② 04 ©5 06 07 08 09 10 11 12 25 26 27 28 29 32 45 46 49	145 751	60 PSI	1.8	1/2"	В
1J-149 100' Bag 1A-149 500' Reel	5/16"	3/16"	.062"	00 07 (10):	110 PSI	45 PSI	2.4	5/8"	B Low Pressure Only
1J-015 100' Bag 1A-015 500' Reel	3/8"	1/4"	.062"	(i)	90 PSI	35 PSI	3.0	3/4"	В

Fre-Thane® 70A Polyurethane® Packaging

Part Number & Packag Color Code Unit Si		I.D.	Wall	Standard Colors	Working P @75°F/25°C @		lbs./ 100'	Bend Radius	Fitting
1J-133 100' B	O		.\	9					
1B-133 500' R		1/8"	.062"	01 10 14 25 26	60 PSI	30 PSI	1.69	1/2"	В
1A-133 1000' R									
1J-170 100' B	ag 3/8"	1 44	.062"	05 07	50 PSI	25 PSI	2.82	3/4"	В
1A-170 500' R	eel 3/0	01	.002		30 1 31	23131	2.02	3/4	

Variations Available:

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

If you don't see exactly what you need, just ask us. Variations to our stock tubing are our specialty. Like our stock tubing, variations are easy to order plus we're happy to work up a prototype. Just give us a call.

www.freelin-wade.com

Request a Quote or Find a Distributor: 888-373-9233

Polyethylene

We offer two varieties of polyethylene, both using a high quality resin that is impermeable to gasses moisture. Lightweight and flexible. our polyethylene is perfect for food and beverage manufacturing.

Polyethylene

olyethylene, also known by its scientific name, "polyethene," is a polymer with eleven different classifications. Though the polymer was invented by accident, producing it with consistent quality was initially problematic. The tide changed that year when Phillip's Petroleum, along with an innovative toy maker, launched the Hula-Hoop™. Twenty million of the polyethylene hoops were sold in the first six months.

Freelin-Wade uses two different classes of polyethylene for their tubing: Low Density Polyethylene (LDPE) and Linear Low Density Polyethylene (LLDPE). The difference between the two is that LDPE is more flexible while LLDPE has superior environmental stress crack resistance.

As a variation, Freelin-Wade can match only color in LDPE, but due to special manufacturing restriction we require a minimum order of 3.000 feet.

Low Densitus

- Lightweight and flexible.
- Superior dielectric properties.
- Easily heat sealed.
- Tasteless and odorless.
- •¶mpermeable to gasses and moisture.

LDPE is extruded to close tolerances from high quality low density polyethylene resins. All colors except red, comply with FDA regulation 21 CFR 177.1520(c) for food contact applications. Freelin-Wade's LDPE has a water absorption rate of 0.15%, per ASTM D-570 standards. It is priced economically, making it a great value.

All colors of polyethylene, except red, comply with FDA regulation 21 CFR 177.1520 (c) 2.1 for food contact applications.

Specifications

Temperature Range

All Diameters:

40°F to +150°F To 28" Hg.

Vacuum Rating: Diameter Tolerances

Hardness

44 Shore D

±.004"

LDPE: LLDPE:

50 Shore D

Tube Markings:

FW Specifications

Working Pressure:

3:1 Safety Factor

Base Resin Compliance:

FDA (except red) NSF51 (LLDPE)

Recommended Fittings

LDPE:

Push-In,

LLDPE:

Compression

Barb, Push-In,

Compression

Polyethylene

Low Density Polyethylene – LDPE

LUM D	eligită i	ruly	UUI	yiGi	G — LDL F					
Part Number Color Code	& Packaging Unit Size	O.D.	I.D.	Wall	Standard Colors		Pressure @150°F/65°C	lbs./ 100'	Bend Radius	Fitting
1J-109 1L-109 1C-109 1B-109 1A-109	250' Box 500' Reel 1000' Reel	1/8"	.062"	.031"	1 04 05 06 07 08 09:105:	305 PSI	120 PSI	.40	1/2"	PI, C
1J-189 1L-189 1C-189 1B-189 1A-189	250' Box 500' Reel 1000' Reel	5/32"	.106"	.025"	0) (5) (6) (7) (8) (10):	175 PSI	70 PSI	.46	1"	PI, C
1J-048 1B-048 1A-048	500' Reel 1000' Reel	1/4"	.170"	.040"	1 04 05 06 07 08 09:109:	200 PSI	80 PSI	1.2	1-1/4"	PI, C
1J-077 1A-077	_	5/16"	.187"	.062"	01 05 05 07 08 (10):	230 PSI	90 PS	2.5	1-1/2"	PI, C
1J-074 1A-074	500' Reel	3/8"	.250"	.062"	01 04 05 06 07 08 09:10:	190 PSK	75 PSI	2.76	2"	PI, C
1J-076 1A-076 1AA-076	250' Reel	1/2"	.375"	.062"	0.6608 0.66	135 PSI	55 PSI	3.87	2-1/2"	PI, C
1A-086 1AA-086	100' Reel	5/8"	.500"	.062"	0 (0)	100 PSI	40 PSI	5	3"	PI, C
Metric Size	1									
Part Number 8 Color Code	& Packaging Unit Size	O.D. mm	I.D. mm	Wall mm	Standard Colors	Working @75°F/25°C	Pressure @150°F/65°C	lbs./ 100'	Bend Radius	Fitting
	250' Box	4	2.7	.65	0) (5) (6) (7) (8) (1):	175 PSI	70 PSI	.46	25.2mm	PI, C
1J-071 1B-071 1A-071	500' Reel	6	4	Oil	0 07(10)	175 PSI	70 PSI	1.1	31.8mm	PI, C
1J-072 1A-072	100' Bag 500' Reel	8 (Dell	1	01 65 07 (10):	140 PSI	55 PSI	1.5	38mm	PI, C
l J-073 l A-073	500' Reel	10	8	1	0) 07 :10:	115 PSI	45 PSI	2.1	51mm	PI, C
1AA-075	250' Reel 500' Reel	12	9	1.5	0) 07 :10:	135 PSI	55 PSI	3.44	63.5mm	PI, C
	S Availabl Itting • Printir		ckagin	g • Size						

Also known as Poly-Tube™

Polyethylene – Linear Low Density (LLDPE) – PE-2000™



Linear Low Density Polyethylene – LLDPE PE-2000™

- Greater tensile strength.
- Higher burst pressure.
- Superior stress and crack resistance.
- Puncture resistance.
- Impermeable to gasses and moisture.

E-2000® LLDPE's greatest advantage over low density polyethylene is its superior environmental stress crack resistance (ESCR). withstanding 500 hours exposure to IGEPAL solution per ASTM D-1693 ESCR tests. Environmental stresses that can shorten the service life of tubing include: chemical exposure, aging, ultraviolet light, connection to barb-type fittings, or high vibration connections with compression fittings.

All colors except red comply with FDA regulation 21 CFR 177.1520 (c) 3.2(a) for food contact applications.

As a variation, Freelin-Wade can match any color in LLDPE, but due to special manufacturing restrictions we require a minimum

ear Low Density Polyethylene — LLDPE — PE-2000™

Part Number & Packaging Color Code Unit Size	JO.5.	I.D.	Wall	Standard Colors	Working F @75°F/25°C		lbs./ 100'	Bend Radius	Fitting
1J-067 100' Bag 1C-067 500' Reel 1B-067 1000' Reel 1A-067 2500' Reel	5/32"	.106"	.025"	0 (10)	180 PSI	70 PSI	.46	1"	B, PI, C
1J-068 100' Bag 1B-068 500' Reel 1A-068 1000' Reel	1/4"	.170"	.040"	01 04 05 06 07 08 03 10 12	190 PSI	75 PSI	1.2	1-1/4"	B, PI, C
1J-069 100' Bag 1A-069 500' Reel	3/8"	1/4"	.062"	01050607 08(10)	205 PSI	80 PSI	2.76	2"	B, PI, C
1J-070 100' Bag 1A-070 250' Reel 1AA-070- 500' Reel	1/2"	3/8"	.062"	1 (10):	150 PSI	60 PSI	3.87	2-1/2"	B, Pl, C

Variations Available:

Colors • Cutting • Printing • Packaging • Size

Polyvinyl Chloride – PVC

olyvinyl Chloride (PVC) is possibly the most versatile product from the chemical industry. It's used extensively in construction from siding, to wire insulation, to window frames to pipe. With the addition of phthlate ester plasticizer, the compound becomes guite flexible and an excellent material for tubing.

Freelin-Wade's PVC is clear, lightweight and extremely flexible. Its smooth interior and exterior prevents sediment accumulation and makes it impervious to bacterial action. It is widely used in the food & beverage, medical and pharmaceutical industries.

Our reinforced PVC hose utilizes an open weave innerbraid for increased working pressures up to 250 psi. The smooth-bore, full-flow I.D. dimensions are sized to fit standard commercial barbed fittings. Reinforced PVC is only available in the clear #10 color.

Specifications

Temperature Range: **Vacuum Rating**

-30°F to +150°F

Reinforced PVC:

To 18" Hg. 80A Durometer

Hardness: **Tube Markings:**

None

Working Pressure:

3:1 Safety Factor Base Resin Compliance: FDA for Food Contact.

> California Prop. 65 *Meets USPVI Testing Requirements.

Recommended Fitting:

Barb

PVC

									THE R. P. LEWIS CO., LANSING, MICH.
Part Number & Color Code	Packaging Unit Size					ress y @15 C 2/65°C	lbs./ 100'	Bend Radius	Fitting
1J-700-10*	100' Length	1/8"	1/16"	.031"	145 PSĮ 4	20 PSI	.51	3/8"	В
1A-700-10*	2500' Reel	1/0	1/10	.031	145 F5	20 F31	.31	3/0	D
1J-701-10*	100' Length	1 /41	1 (0)	0.00	165 001	0E D0I	0	1 (01)	D.
1A-701-10*	1000' Reel	1/4"	1/8"	.062"	165 PSI	25 PSI	2	1/2"	В
1J-703-10*	100' Length	F /1 CII	2 /1 61	000	110 001	1 F DOI	0.6	F /OII	D
1A-703-10*	500' Reel	5/16"	3/16"	.062"	110 PSI	15 PSI	2.6	5/8"	В
1J-704-10*	100' Length	2 (0)	1 /41	~~	100 001	15 001	2.05	7 (01	
1A-704-10*	500' Reel	3/8"	1/4"	.062"	100 PSI	15 PSI	3.25	7/8"	В
1J-705-10	100' Length	1/2"	3/86	.062"	70 PSI	10 PSI	4.55	1-3/4"	В
1J-706-10	100' Length	3/4"	$C^{1/2}$.125"	100 PSI	15 PSI	13.01	1-1/4"	В

Variations Available:

*Meets USPVI Testing Requirement

Reinforced PV

Reinforced PVC is only available in the clear #10 color.

Part Number & Color Code	Packaging Unit Size	0.D.					lbs./ 100'		
1J-750-10	100' Length	.438"	1/4"	.094"	250 PSI	125 PSI	5.38	1"	В
1J-751-10	100' Length	.594"	3/8"	.110"	225 PSI	110 PSI	8.83	1-1/4"	В
1J-752-10	100' Length	.750"	1/2"	.125"	200 PSI	100 PSI	13.01	2-1/4"	В
1J-753-10	100' Length	1.025"	3/4"	.137"	150 PSI	75 PSI	20.32	3-1/4"	В
1J-754-10	100' Length	1.312"	1"	.156"	125 PSI	60 PSI	30.01	5"	В
1J-755-10	100' Length	1.656"	1-1/4"	.203"	100 PSI	50 PSI	49.11	6-1/2"	В
1J-756-10	100' Length	1.937"	1-1/2"	.218"	100 PSI	50 PSI	62.52	8-1/2"	В
1J-757-10	100' Length	2.5"	2"	.250"	75 PSI	35 PSI	93.66	10"	В

Variations Available:

Also known as Clear-Line HP™

Nylon 11

Specifications

Temperature Range: Vacuum Rating: Diameter Tolerances:

nces: +.002"; -.004" Metric: +.051 mm; -.1 mm

To 28" Hg.

Hardness: Tube Markings: Working Pressure: UV Stabilized: 78 Rockwell R FW Specifications 4:1 Safety Factor Yes

-60°F to +200°F

Base Resin Compliance: Meets UL94HB

 Meets UL94HB Testing Requirments

Recommended Fitting:

Push-In, Compression cientists at DuPont invented nylon in 1931. Heralded as "the miracle fiber" because unlike previous manufactured fibers, that early nylon was synthesized entirely from petrochemicals. Like other polymers, its first major commercialization came as a textile. DuPont never registered the trademark for nylon, instead hoping that the name would become synonomous with "stockings."*

There are five main classes of nylon: 6/6, Nylon 6, Nylon 6/12, Nylon 11, and Nylon 12. Freelin-Wade chose Nylon 11 for our tubing because it has high chemical resistance properties while absorbing less moisture than other nylons. Nylon 11 is also much less rigid than the "6-formulas" of the resin. It allows for a lighter weight wall, greater flexibility and smaller bend radius. It's also worth noting that unlike the early nylon compounds, Freelin-Wade's Nylon 11 resin is manufactured from castor oil, a renewable resource. We like to call it "environmentally advantaged."

	_		-4	
	m	m	-11	
w			- 1	
 	-			_

Part Number & Packaging Color Code Unit Size	O.D.	I.D.		Standard Colors	O/orking 475°F/25°C	Pressure @150°F/65°C	lbs./ 100'	Bend Radius	Fitting
1J-247 100' Bag 1A-247 2500' Reel	1/8"	.079"	.023"		420 PSI	250 PSI	.35	3/8"	PI, C
1J-200 100' Bag 1C-200 500' Reel 1B-200 1000' Reel 1A-200 2500' Reel	1/8"	.093"	.016"	0000000	270 PSI	160 PSI	.25	1/2"	PI, C
1J-201 100' Bag 1C-201 500' Reel 1B-201 1000' Reel 1A-201 2500' Reel	5/32"	.106"	.025"	01 03 05 06 07 08 (9:10:12)	350 PSI	210 PSI	.51	1/2"	PI, C
1J-202 100' Bag 1B-202 500' Reel 1A-202 2000' Reel	3/16"	.138"	.025	01 05 07 (10):	260 PSI	160 PSI	.55	5/8"	PI, C
1J-214 100' Bag 1A-214 1000' Reel	1/4"	:125"	.062"	01 (10):	590 PSI	350 PSI	1.77	3/8"	PI, C
1J-203 100' Bag 1B-203 500' Reel 1A-203 1000' Ree	1/4"	.170"	.040"	① 03 ⑥ ⑥ ② 08 ① (10):	330 PSI	200 PSI	1.27	3/4"	PI, C
1J-204 100' Bag 1B-204 500' Reel 1A-204 1000' Reel	1/4"	.180"	.035"	01 05 06 07 08 09 :103:	290 PSI	170 PSI	1.13	1"	PI, C
1J-205 100' Bag 1A-205 500' Reel	5/16"	.232"	.040"	01 05 06 07 08 (10)	240 PSI	140 PSI	1.64	1-1/2"	PI, C
1J-206 100' Bag 1A-206 500' Reel	3/8"	.275"	.050"	0) 65 07 08 (10):	250 PSI	150 PSI	2.45	1-1/2"	PI, C
1J-207 100' Bag 1A-207 250' Reel 1AA-207- 500' Reel	1/2"	.375"	.062"	10000000	240 PSI	140 PSI	4.12	2-1/4"	PI, C
1J-213 50' Bag 1AA-213 250' Reel	5/8"	1/2"	.062"	0 (10):	170 PSI	100 PSI	5.30	3-1/4"	PI, C
				Coiling • Colors •	Cutting • E			ns Avai ackaging	lable: • Sizes

Also known as Fre-Lon®

Freelin-Wade manufactures Nylon 11 tubing in a variety of sizes and colors. There are also any number of variations possible. We're happy to match any color you need, configure a coil, bond up to two tubes, print it and cut it to length. Freelin-Wade can make a Nylon 11 tube to meet your needs.

*Source: American Fiber Manufacturers Association

Features

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

Nylon 11 – Metric Sized

Mylon II IIIo		VIL	·UU			-			
Part Number & Packaging Color Code Unit Size	O.D. mm	I.D. mm	Wall mm	Standard Colors	Working F	Pressure @150°F/65°C	lbs./ 100'	Bend Radius	
1J-246 100' Bag 1C-246 500' Reel 1B-246 1000' Reel 1A-246 2500' Reel	3	1.8	.6	1. 1. 1. 1. 1. 1. 1. 1.	410 PSI	240 PSI	.33	6.3 mm	PI, C
1J-201 100' Bag 1C-201 500' Reel 1B-201 1000' Reel 1A-201 2500' Reel	4	2.7	.65	0 03 05 06 07 08 00 (10) 12	350 PSI	210 PSI	.51	12.7 mm	PI, C
1J-241 100' Bag 1A-241 1000' Reel	5	3	1	0 (6)0	420 PSI	250 PSI	.94	9.5 mm	PI, C
1J-242 100' Bag 1A-242 1000' Reel	6	4	1	3 6 6 07 (10)	340 PSI	200 PSI	1.17	17 mm	PI, C
1J-243 100' Bag 1A-243 500' Reel	8	6	(O)	(1) 03 (10):	250 PSI	150 PSI	1.64	38 mm	PI, C
1J-244 100' Bag 1A-244 500' Reel	10	8	1	① 03 (10):	190 PSI	110 PSI	2.11	51 mm	PI, C
1J-245 100' Bag 1A-245 250' Reel 1AA-245 500' Reel	12	10	1	0 (10):	150 PSI	90 PSI	2.55	76 mm	PI, C
Variations Available									

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

Also known as Fre-Lon®

Nylon 11



www.freelin-wade.com

Request a Quote or Find a Distributor: 888-373-9233

Nylon 11 – High Pressure & D.O.T.

Specifications - HP

Temperature Range: -6
Vacuum Rating: To
Diameter Tolerances: ±

-60°F to +200°F To 28" Hg. ±.003" 1/2" O.D. ±.005"

Hardness: Tube Markings: Working Pressure: UV Stabilized: 108 Rockwell R FW Specifications 4:1 Safety Factor Yes

Base Resin Compliance:

Meets UL94HB Testing Requir-

ments Push-In.

Recommended Fittings:

Push-In, Compression reelin-Wade's High Pressure Nylon 11 tubing is made from a semirigid 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 11 material with much higher burst ratings.

Nylon 11 - High Pressure

Part Number & Color Code	Packaging Unit Size	0.D.	I.D.		Standard Color	Working Pressure @75°F/25°C	lbs./ 100'	Bend Radius	Fitting
1J-280-10	100' Bag								
1B-280-10	500' Reel	1/8"	.073"	.026"	:10:	800 PSI	.39	5/16"	PI, C
1A-280-10	2500' Reel								
1J-281-10	100' Bag								
1B-281-10	500' Reel	3/16"	.109"	.039"	:10:	800 PSI	.88	7/16"	PI, C
1A-281-10	2000' Reel				4				
1J-282	100' Bag				0,				
1B-282	500' Reel	1/4"	.150"	.050"	(10:	800 PSI	1.51	9/16"	PI, C
1A-282	1000' Reel			11.					
1J-283	100' Bag	3/8*	\$25")	(1) :10:	800 PSI	3.39	1"	PI, C
1A-283	500' Reel	3/0	223	.075	OP (TÖ)	000131	5.55	1	11, 0
1A-284-10	250' Reel	1/2"	.350"	075"	10:	530 PSI	4.81	2"	PI, C
1AA-284-10	500' Reel	7/2	.550	.075	110.	JJ0 I JI	4.01		11, 0
	12					Variat		Availa	ble:
	A C	oiling	Cole	ors •	Cutting •	Printing •	Packa	iging • :	Sizes

Also known as Fre-Lon HP™

O.T. tubing is made with Freelin-Wade's Nylon 11. 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. D.O.T. tubing is available on easy-to-dispense reels. A variety of colors are available. It is heat and light stabilized.

Specifications – D.O.T.

Temperature Range: Vacuum Rating: Hardness: Tube Markings: Working Pressure: UV Stabilized: Base Resin Compliance: -40°F to +200°F To 28" Hg. 78 Rockwell R D.O.T. Specs 4:1 Safety Factor Yes

Meets UL94HB Testing Requirments

Recommended Fittings: Push-In, Compression

.023 2000' Reel **(1)** (5) (7) (8) (9) 1000 PSI 3/8" ±.003 **100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100** .032 1200 PSI .57 1A-221-2000' Reel 5/32' 1/2" ±.003 **@ @ 07** 08 .035 1A-222-__ 2000' Reel 1200 PSI 3/4" $\pm .003$ **100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100** .040 1200 PSI 1" 1A-223-___ 1000' Reel 1.21 $\pm .003$.040 0105060708 1000 PSI 1.57 1-1/4" 1A-225-500' Reel 5/16" $\pm .004$

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



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 11 tubing. Our Super Soft Nylon 11 is made from a softer resin that allows for a tight bend radius — much tighter than the conventional Nylon 11. This advantage makes our Super Soft Nylon 11 the ideal choice where media and environmentations make polyurethane impractical.

Temperature Range:

Vacuum Rating: **Dameter Tolerances:**

+.002"; -004" +.051 mm; -.1 mm 57 Shore D FW Specs 4:1 Safety Factor Yes Meets UL94HB

Nylon 11

 -40° F to $+180^{\circ}$ F

To 28" Hg.

Features • More flexible than st • Heat and light stability Super Soft Ny	rethane imp andard Nylo zed.	ractical.	righter bend radius.	UV Stabil Base Res	rkings: Pressure:	nce:	57 Shore I FW Specs 4:1 Safety Yes Meets UL9 Testing Rements Push-In, Compressi	Factor 4HB quir-
Part Number & Packaging Color Code Unit Size	0.D. Light	Wall	Standard Colors	Working F @75°F/25°C •	Pressure @150°F/65°C	lbs./ 100'	Bend Radius	Fitting
1J-260 100' Bag 1A-260 2500' Reel	1/8" .093"	.016"	1 (10):	200 PSI	120 PSI	.25	9/16"	PI, C
1J-261 100' Bag 1A-261 2500' Reel	5/32" .106"	.025"	(1 0):	220 PSI	130 PSI	.45	9/16"	PI, C
1J-264 100' Bag 1A-264 1000' Reel	1/4" .180"	.035"	(1 0):	180 PSI	110 PSI	1.04	1"	PI, C
1J-265 100' Bag 1A-265 500' Reel	5/16" .232"	.040"	(1 0):	170 PSI	100 PSI	1.52	1-1/4"	PI, C
1J-266 100' Bag 1A-266 500' Reel	3/8" .275"	.050"	0 (10):	160 PSI	90 PSI	2.26	1-5/8"	PI, C
1J-267 100' Bag 1AA-267 500' Reel	, ,	.062"	1 (10):	140 PSI	80 PSI	3.80	2-1/2"	PI, C

*V*ariations Available:

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

Also known as Sof-Lon™

Specialty – Kynar® PVDF

Specifications

Temperature Range: -40°F to +180°F
Vacuum Rating: To 28" Hg.
biameter Tolerances: ±.005"
Hardness: 57 Shore D
None

Working Pressure: 4:1 Safety Factor

Base Resin Compliance: FDA

CFR 177.2600, USPVI

Recommended Fittings: Push-In, Compression

ynar® PVDF compound is an economical alternative to Teflon®, (PTFE, PFA, and FEP) tubing for applications not requiring heat resistance. Kynar possesses excellent resistance to a wide range of chemicals. The high purity material is the ideal tubing for a variety of applications requiring an odorless and tasteless tube.

There are multiple grades of Kynar resins available. Some of these are used in rigid pipe applications. Freelin-Wade uses the most flexible grade available.

For more information about Kynar, refer to the Kynar Website: www.kynar.com You can also refer to our Chemical Resistance Chart on page 36.

Features

Resists:

- Acids
- Aromatics
- **J**nalogei
- Radiation

- Alcohol
- Mild Bases
- Out-gassi
- UV Light

- Aliphatics
- Chloride
- Sterilizable by Gamma Radiation or Ozone.
- Resists fungal growth per MS 810B, Method 508 testing.
- Low out-gassing: Weight loss is 13×10^{11} g/cm2s at 212° F at 5×10^{6} torr vaccum level.

Kynar® PVDF

	Color Code	Packaging Unit Size	0.D.	I.D.	Wall	Standard Colors		Pressure @150°F/65°C	lbs./ 100'	Radius	Fitting
h	1J-601 1A-601	100' Bag 2500' Reel	1/8"	1/16"	.030"	0 .10:	300 PSI	125 PSI	0.71	3/16"	PI, C
	1J-645 1B-645 1A-645	1000' Reel	1/4"	.170"	.040"	(1):10:	165 PSI	70 PSI	2.03	3/4"	PI, C
	1J-652 1A-652	100' Bag 500' Reel	3/8"	1/4"	.062"	① (10)	165 PSI	70 PSI	4.72	1-1/4"	PI, C
	1J-611 1A-611 1AA-611	100' Bag 250' Reel 500' Reel	1/2"	3/8"	.062"	0 :10:	130 PSI	55 PSI	6.61	2-1/8"	PI, C
										Motrio	Cirod
										Metric	317AN
	Part Number & Color Code	Packaging Unit Size	O.D. mm	I.D. mm	Wall mm	Standard Colors		Pressure @150°F/65°C	lbs./ 100'	Bend Radius	Fitting
						Standard Colors				Bend	
	Color Code 1J-642 1B-642	Unit Size 100' Bag 500' Reel	mm	mm	mm		@75°F/25°C	@150°F/65°C	100'	Bend Radius	Fitting
	Color Code 1J-642 1B-642 1A-642 1J-643	Unit Size 100' Bag 500' Reel 1000' Reel 100' Bag	mm 6	mm 4	mm 1	(1) :10:	@75°F/25°C	@150°F/65°C 115 PSI 85 PSI 55 PSI	1.88 2.63 4.07	Bend Radius 15.9 mm	PI, C PI, C PI, C

Also known as Pomalon®

Specialty – Fluorinated Ethylene Propylene – FEP

Specifications

Temperature Range: -100°F to +400°F

-73°C to 204°C

Diameter Tolerances: ±.004" on <3/16" ID

±.005" on >1/8" ID

Tube Markings: None

Working Pressure: 4:1 Safety Factor Base Resin Compliance: FDA Food Contact

UL 94 VO

ASTM D 3296-03

Recommended Fittings: Flare

Conventional

ubing that fits, arrives on time, plus customer service people who

new line of FEP tubing. Freelin-Wade's FEP tubing (compare to DuPont's Teflon®) is the most durable and versatile flexible plastic tubing that

can buy.

FEP, or fluorinated ethylene propylene, is an economical choice for applications requiring chemical resistance or exposure to a wide range of temperatures. Freelin-Wade's FEP is extremely flexible, making it an ideal choice for self-retracting coils. FEP is also available in a variety of packaged lengths.

eotures

100% virgin grade high performance resins designed to resist stress cracking.

- High thermal stability.
- Superior electrical insulation properties.
- Chemically inert to most industrial chemicals and solvents.

Specialty

Fluorinated Ethylene Propylene – FEP

Part Number	Packaging Unit Size	0.D.	I.D.	Wall	Color	Working Pressure @72°F/22°C	Bend Radius
1J-900-10 1C-900-10 1B-900-10 1A-900-10	100' Bag 500' Reel 1000' Reel 2500' Reel	1/8" 3.18 mm	1/16" 1.57 mm	.030" .76 mm	(10)	300 PSI	1/2"
1J-901-10 1B-901-10 1A-901-10	100' Bag 500' Reel 2500' Reel	1/4" 6.35 mm	3/16" 4.78 mm	.030" .76 mm	<u>(10</u>):	150 PSI	1"
1J-902-10 1A-902-10	100' Bag 1000' Reel	1/4" 6.35 mm	1/8" 3.18 mm	.062" 1.57 mm	(10)	300 PSI	1/2"
1J-903-10 1A-903-10	100' Bag 1000' Reel	3/8" 9.53 mm	1/4" 6.35 mm	.062" 1.57 mm	:10;	207 PSI	1"
1J-904-10 1A-904-10	100' Bag 500' Reel	1/2" 12.70 mm	3/8" 9.53 mm	.062" 1.57 mm	(10)	155 PSI	2"

Variations Available:

Coiling • Cutting • Packaging • Jacketing

Specialty – Multi-Colored Ribbon – MCR

Specifications

Temperature Range

 -40° F to $+165^{\circ}$ F All Diameters:

Vacuum Rating

85A-95A: To 28" Hg.

70. To 20" Hg.

Diameter Tolerances

1/8" - 9/16": ±.005" 3/4": ±.007" ±.127 mm Metric:

Tube Markings: None

Working Pressure: 3:1 Safety Factor **UV Stabilized:** 95A & 85A

Base Resin Compliance

95A: NSF61.

Meets UL94HB

90A: NSF61. FDA

85A: NSF61.

Meets UL94HB,

USPVI

70A: Meets UL94HB

Recommended Fittings

95A: Barb, Push-In, FX

90A: Barb 85A: Barb 70A:

Request a Quote or Find a Distributor: 888-373-9233

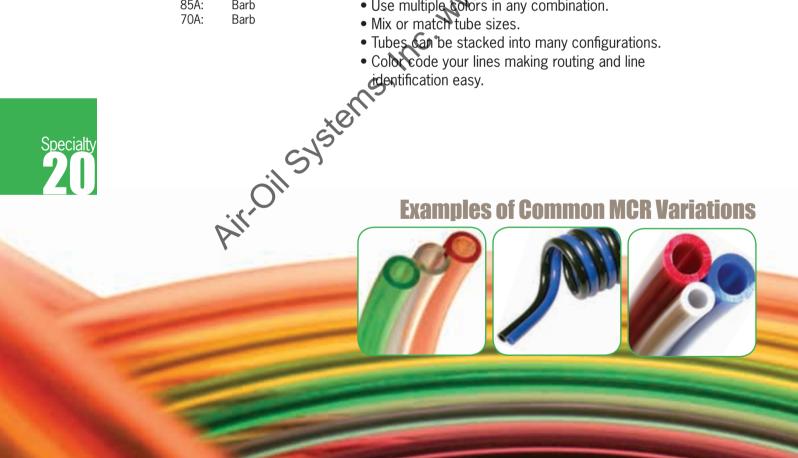
ulti-Color Ribbon tubing (MCR) is a bonded ribbon of multi-colored Fre-Thane® Polyurethane tubing. Any time that you are routing two or more lines, MCR is the way to go. It offers faster installation times and eliminates the need for spiral wrap or jacketing.

Freelin-Wade's proprietary bonding process allows the tubing to be separated without leaving a residue. This ensures a tight, leak free seal with push-in style fittings. MCR is a durable, cost-effective way to color code your tubing lines for identification, tracing or troubleshooting. Additionally, MCR will withstand the rigors of flexing and stretching, just like the rest of our polyurethane tubing.

MCR is available in a wide range of stock configurations which are listed to the right. In addition, variations are easy, Freelin-Wade will make MCR to suit your needs. Our unique manufacturing process enables us to bond up to 20 tubes, mixing and matching colors, sizes and configurations.

www.freelin-wade.com

- Bond 2 to 20 tubes.
 Use multiple and
 Mix or mail • Use multiple colors in any combination.
- Tubes can be stacked into many configurations.
- Color code your lines making routing and line



Specialty – Multi-Colored Ribbon – MCR

95A Standard **Multi-Color Ribbon (MCR)**

Part Number & Color Code Sequence	Packaging Unit Size	O.D. I.D. Configuration
2M-157-05-07	100' Bag	1/8" .066"
2ME-157-05-07	Cut Length	Twin Tube
4M-157-05-07-11-10	100' Bag	1/8" .066"
4ME-157-05-07-11-10	Cut Length	Quad Tube
6M-157-08-06-05-07-11-10	100' Bag	1/8" .066"
6ME-157-08-06-05-07-11-10	Cut Length	Six Tube
8M-157-25-27-08-06-05-07-11-10	100' Bag	1/8" .066"
8ME-157-25-27-08-06-05-07-11-10	Cut Length	Eight Tube
2M-156-05-07	100' Bag	5/32" 3/32"
2ME-156-05-07	Cut Length	Twin Tube
4M-156-05-07-11-10	100' Bag	5/32" 3/32"
4ME-156-05-07-11-10	Cut Length	Quad Tube
6M-156-08-06-05-07-11-10	100' Bag	5/32" 3/32"
6ME-156-08-06-05-07-11-10	Cut Length	Six Tube
2M-151-05-07	100' Bag	1/4" .160"
2ME-151-05-07	Cut Length	Twin Tube
4M-151-05-07-11-10	100' Bag	1/4" .160"
4ME-151-05-07-11-10	Cut Length	Quad Tube
6M-151-08-06-05-07-11-10	100' Bag	1/4" .160"
6ME-151-08-06-05-07-11-10	Cut Length	Six Tube
8M-151-25-27-08-06-05-07-11-10	100' Bag	1/4" .160"
8ME-151-25-27-08-06-05-07-11-10	Cut Length	Eight Tube
2M-152-05-07	100' Bag	3/8" 1/4"
2ME-152-05-07	Cut Length	Twin Tube C
4M-152-05-07-11-10	100' Bag	3/8" 1/4"
4ME-152-05-07-11-10	Cut Length	Quad Tube

85A Standard Multi-Color Ribbon (MCR)

Part Number & Color Code Sequence	Packaging Unit Size	O.D. I.D. Configuration
2M-013-01-10	100' Bag	1/8" .066"
2ME-013-01-10	Cut Length	Twin Tube
4M-013-26-28-29-25	100' Bag	1/8" .066"
4ME-013-26-28-29-25	Cut Length	Quad Tube
6M-013-06-07-05-08-09-12	100' Bag	1/8" .066"
6ME-013-06-07-05-08-09-12	Cut Length	Six Tube
8M-013-11-04-32-27-26-28-29-25	100' Bag	
8ME-013-11-04-32-27-26-28-29-25	Cut Length	1/8" .066"
8M-013-10-10-10-10-10-10-10	100' Bag	Eight Tube
8ME-013-10-10-10-10-10-10-10	Cut Length	J
2M-025-01-10	100' Bag	1/4" 1/8"
2ME-025-01-10	Cut Length	Twin Tube
4M-025-26-28-29-25	100' Bag	
4ME-025-26-28-29-25	Cut Length	
4M-025-01-01-01	100' Bag	1/4" 1/8"
4ME-025-01-01-01-01	Cut Length	Quad Tube
4M-025-10-10-10-10	100' Bag	
4ME-025-10-10-10-10	Cut Length	
6M-025-06-07-05-08-09-12	100' Bag	
6ME-025-06-07-05-08-09-12	Cut Length	1/4" 1/8"
6M 025-10-10-10-10-10	100' Bag	Six Tube
6ME-025-10-10-10-10-10	Cut Length	
8M-025-11-04-32-27-26-28-29-25	100' Bag	1/4" 1/8"
8ME-025-11-04-32-27-26-28-29-25	Cut Length	Eight Tube

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

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

95A Multi-Colored Rikkon

Part Number	0.D.	I.D.	Tail Length	Working @75°F/25°C	Pressure @150°F/65°C	Material Length	Working Length	Retracted Length	Coil ID
2MC-156-5 2MC-156-10	5/32"	3/32	8"	210 PSI	85 PSI	5' 10'	3.75' 7.5'	3.75" 9"	1" 1"
2MC-151-5 2MC-151-10	1/4"	.160"	8"	155 PSI	60 PSI	5' 10'	3.75' 7.5'	5.6" 13.25"	1" 1"
2MC-152-5 2MC-152-10	3/8"	.245"	8"	150 PSI	60 PSI	5' 10'	3.75' 7.5'	5" 11.5"	1.75" 1.75"

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

Specialty

Specialty – Static Dissipative Polyurethane

Specifications - 90A

Temperature Range: -40° F to $+165^{\circ}$ F Vacuum Rating: To 28" Hg. **Diameter Tolerances:** ±.005" **Tube Markings:** None **Dissipative Values:** (per EIA Std 541) **Volume Resistivity:** 5 x 109 ohms-cm 5×10^9 ohms/sq. **Surface Resistivity: Working Pressure:** 3:1 Safety Factor **Recommended Fitting:** Barb

Static electricity is a stationary charge of electricity resting on an object's surface. With plastic tubing, the charge is generated usually by friction on the exterior or interior of the tubing. The charge is typically localized. This means that a charge may exist on one part of the tube but not the entire tube. The spotty nature of the charge makes it much harder to detect. Furthermore, humans can only sense electrostatic discharge (ESD) greater than 3,500 electrostatic volts. A charge as low as 100 ESD volts can damage certain circuits meaning that electronics can be destroyed by ESD without the person even knowing it. For more information about ESD, contact Freelin-Wade.

Freelin-Wade's Static Dissipative Polyurethane tubing is available in both a 90A durometer and an 85A durometer tube. It's made from an ether-based polyurethane that is specially formulated to help control ESD. It should always be used in low humidity environments or when tubing is going to be near circuit boards.

90A Static Dissipative Polyurethane

	Part Number & Color Code	Packaging Unit Size	O.D.	I.D.	Wall	Standard Colors	Working F @75°F/25°C @		lbs./ 100'	Bend Radius	Fitting
	1J-457-90 1C-457-90 1B-457-90	100' Bag 500' Reel 1000' Reel 2500' Reel	1/8"	.066"	.030"	1/C.	135 PSI	70 PSI	.44	1/4"	В
h.	1J-486-90 1C-486-90 1B-486-90	100' Bag 500' Reel 1000' Reel 2500' Reel	5/32"	3/32"	.031"	000000 081	105 PSI	50 PSI	.61	3/8"	В
Ly	1J-451-90 1B-451-90 1A-451-90	100' Bag 500' Reel 1000' Reel	1/4"	.160	2 45	0000	115 PSI	60 PSI	1.46	3/4"	В
	1J-452-90 1A-452-90	100' Bag 500' Reel	3/8	.245"	.065"	0105	100 PSI	50 PSI	3.18	1"	B Sized
	Part Number & Color Code	Packaging Unit Size	O.D. mm	I.D. mm	Wall mm	Standard Colors	Working F @75°F/25°C @		lbs./ 100'	Bend Radius	Fitting
	1J-486-90 1A-486-90	100' Bag 2500' Reel	4	2.4	.8	01020507 (9)81)	105 PSI	50 PSI	.8	9.5 mm	В
	1A-486-90 1J-488-90	Ü	4 6	2.4	.8	000000 (81)	105 PSI 90 PSI	50 PSI 45 PSI	.8 1.3	9.5 mm 12.7 mm	B B
	1A-486-90 1J-488-90	2500' Reel 100' Bag	·								
	1A-486-90 1J-488-90 1A-488-90 1J-489-90	2500' Reel 100' Bag 1000' Reel 100' Bag	6	4 5	1	0000 (81)	90 PSI	45 PSI	1.3	12.7 mm	В
	1A-486-90 1J-488-90 1A-488-90 1J-489-90 1J-490-90	2500' Reel 100' Bag 1000' Reel 100' Bag 500' Reel 50' Bag	6	4 5	1 1.5		90 PSI 100 PSI	45 PSI 50 PSI	1.3	12.7 mm 19 mm	В

Specialty – Static Dissipative Polyurethane

Features

- Dissipates electrostatic charges with no chemical additives.
- Contains no conductive fillers and no particle emission.
- Dissipative values are permanent and cannot be washed away.
- Non-contaminating and non-outgassing.
- Ideal for low humidity environments.
- Non-corrosive to electronic leads and components.

Specifications - 85A

Coiling • Colors • Cutting • Bonding • Printed • Packaging • Sizes

Specifications	s - 85 /	A						III
Temperature Range: Vacuum Rating: Diameter Tolerances: Tube Markings: Dissipative Values: Volume Resistivity: Surface Resistivity: Working Pressure: Base Resin Compliance: Recommended Fitting:	-40°F to To 28" H ±.005" None (per EIA 4 x 10 11 3:1 Safe FDA for Contact Barb	+165°F lg. Std 54: ohms-cohms/sety Factor Food	1) cm sq. or Polyurethans Standard Colors	WM SIK	on core			
Part Number & Packaging Color Code Unit Size	0.D. I.D.	Wall	Standard Colors	Working @75°F/25°C	Pressure @150°F/65°C	lbs./ 100'	Bend Radius	Fitting
1J-413 100' Bag 1C-413 500' Reel 1B-413 1000' Reel 1A-413 2500' Reel	1/8" 1/16	" .031"	0 (1)	115 PSI	55 PSI	48	3/16"	B S
1J-430 100' Bag 1C-430 500' Reel 1B-430 1000' Reel 1A-430 2500' Reel	5/32" 5/64	039	1 1 1 1 1 1 1 1 1 1	125 PSI	60 PSI	.74	3/8"	В
1J-425 100' Bag 1B-425 500' Reel 1A-425 1000' Reel	1/4" 1/8"	.062"	(1) (81)	120 PSI	60 PSI	1.91	1/2"	В
11/05 100' Bag	3/8" .245'	.065"	(1) (81)	90 PSI	45 PSI	3.29	3/4"	В
Part Number & Packaging	O.D. I.D. mm mm	Wall mm	Standard Colors	Working @75°F/25°C		lbs./ 100'	Bend Radius	Fitting
1J-458 100' Bag 1A-458 1000' Reel	6 4	1	(81)	70 PSI	35 PSI	1.27	9.5 mm	В
1J-472 100' Bag 1A-472 500' Reel	9 6	1.5	@ 80	80 PSI	40 PSI	2.84	19 mm	В

www.freelin-wade.com

Variations Available:

Request a Quote or Find a Distributor: 888-373-9233

Also known as Fre-Stat®

Specialty – Multi-Bore Polyurethane



ulti-Bore tubing is produced using our Fre-Thane® polyurethane in a single extrusion. Unlike MCR, it is made in one extrusion which means the tube can only be made in a single color. Unlike MCR, Multi-Bore can't be separated cleanly and should not be used with push-in fittings.

Due to special manufacturing conditions, we are able to offer Multi-Bore only in the colors listed below. If you require more colors, consider using our Multi-Color Ribbon (MCR). See page 20 for more information about MCR.

Specifications

Base Resin Compliance: See Fre-Thane® Compliances on Page 6

Recommended Fitting:

³90A Multi-Bore Polyurethane

	Part Number & Color Code	Packaging Unit Size	0.D.	I.D.	Configuration	Standard Colors		Pressure @150°F/65°C	lbs./100'	Fitting
	2J-006	100' Bag				10				
	2B-006	1000' Reel	1/8"	1/16"	Twin Tube	10:14	190 PSI	75 PSI	1.1	В
	2A-006	2000' Reel			C	^ه د				
	2J-013	100' Bag	1/4"	.159"	Twin Tube	1 4	130 PSI	50 PSI	2.9	В
	2A-013	500' Reel	1/4	.159	IWIII	W 14	130 F31	50 F31	2.9	ь
	2J-024	50' Bag	3/8"	1/4"	Twin Tube	0 10:	120 PSI	50 PSI	6.8	В
у	2A-024	250' Reel	3/0	1/4	Twill lube	1 ,10,	120 F 31	50 F SI	0.0	Ь

Variations Available:Coiling • Cutting • Packaging

85A Multi-Bore Polyurethane

Part Number & Color Code	Packaging Unit Size	0.D.	I.D.	Configuration	Standard Colors	Working @75°F/25°C	Pressure @150°F/65°C	lbs./100'	Fitting
3J-028 3A-028	100' Bag 1000' Reel	1/8"	.066"	Triple Tube	(10) 14	125 PSI	50 PSI	1.7	В
4J-026 4A-026	100' Bag 500' Reel	1/8"	.066"	Quad Tube	:10):	125 PSI	50 PSI	2.2	В
2J-016 2A-016	100' Bag 500' Reel	1/4"	1/8"	Twin Tube	01 04 05 10: 27	150 PSI	60 PSI	4.1	В
3J-022 3A-022	50' Bag 350' Reel	1/4"	1/8"	Triple Tube	①	150 PSI	60 PSI	6.3	В
4J-023 4A-023	50' Bag 250' Reel	1/4"	1/8"	Quad Tube	0 (10):	150 PSI	60 PSI	8.4	В

Variations Available: Coiling • Cutting • Packaging

Specialty – Weld-Spatter Resistant

Specifications

Temperature Range: -40°F to +165°F
Vacuum Rating: To 28" Hg.
Diameter Tolerances: ±.005" Inner
Tube Markings: FW Specs
Working Pressure: 3:1 Safety Factor

Base Resin Compliance

Outer Jacket: Meets UL94VO Inner Tube: Meets UL94HB

Recommended Fittings: Push-In,

Compression, Barb

Weld-Spatter Resistant

eld-Spatter Resistant Tubing is made by taking blue Fre-Thane 95A durometer polyurethane and jacketing it with a specially formulated weld-spatter resistant cover. The result is a jacketed tube that is safe from incidental contact with weld spatter. The outer cover base resin meets UL94VO requirements and offers strong insulating properties. It also resists oils, greases, acids, bases, aqueous solutions, ozone, heat, aging and ultraviolet light. The cover is approximately .030" thick and does not adhere to the inner tube, allowing the jacket to be easily skived

back for fitting connection with conventional compression or push-in fittings. A special jacket trimming tool is available for easy skiving.

Features

- Protects tube from incidental weld spatter contact.
- Flexible with an excellent bend radius.
- Resistant to kink damage.
- Broad range of chemical resistance.
- Can be formed into retractable coils.

rmulated at is safe ase resin perties. It ne, heat, thick and ily skived r push-in ang.

Part Number & Color Code	Packaging Unit Size	O.D.	I.D.	Standard Colors	Working @75°F/25°C	Pressure @150°F/65°C	lbs./100'	Bend Radiu
1J-356-07 1B-356-07 1A-356-07	100' Bag 500' Reel 1000' Reel	5/32"	.093"	0000	210 PSI	85 PSI	1.58	3/8"
1J-351-07 1B-351-07 1A-351-07	100' Bag 250' Reel 1000' Reel	1/4"	.160"	0 6600811	175 PSI	70 PSI	2.89	1/2"
1J-352-07 1A-352-07	100' Bag 500' Reel	3/8"	.245	00000	170 PSI	70 PSI	5.25	7/8"
1J-366-07 1A-366-07	50' Bag 200' Reel	1/2"	.320"	0007	175 PSI	70 PSI	8.52	1-1/8"

Metric Sized		<u>Y</u>						
	Packaging Unit Size	O.D. mm	I.D. mm	Standard Colors	Working @75°F/25°C	Pressure @150°F/65°C	lbs./100'	Bend Radius
1B-358-07 2	100' Bag 250' Reel 000' Reel	6	4	0	160 PSI	65 PSI	2.59	12.7 mm
	100' Bag 500' Reel	8	5	00 07 (11)	190 PSI	75 PSI	4.15	19 mm
	100' Bag 500' Reel	10	6.5	0	170 PSI	70 PSI	5.71	22.2 mm
	100' Bag 250' Reel	12	8	0	155 PSI	60 PSI	7.43	28.6 mm

Variations Available:

Coiling • Colors • Cutting • Printing • Packaging • Sizes

Also known as Spark-Lin®

Hose – Asepsi-Flex® & Flexi-Corr™

Asepsi-Flex® PVC Vacuum Hose

Part Number & Color Code	Packaging Unit Size	I.D.	Standard Colors	Max. Vacuum Hg.
1E-501	25' Length	1/2"	14 54	29
1F-501-	100' Length	1/2	72 92	29
1E-625		5/8"	14 54	29
1F-625- —	100' Length	3/6	72 92	29

sepsi-Flex is made from PVC and is smooth inside and out. The unique design resists kinking and is crush-proof while remaining highly flexible for a variety of vacuum, umbilical, and conduit applications. Available in four colors.



de and out. The unique inking and is crush-proof highly flexible for a m, umbilical, and conduit illable in four colors.	25,100			Moil.co				
System	FI	exi-Co		M Corrug	ated	Hos	e & (Cuffs
	Part Number & Color Code	Packaging Unit Size	I.D.		Working Pressure 275°F/25°C	lhs / N		Part Number for Cuffs
sik.	1E-047 1F-047	25' Length 250' Box 5 @ 50'	1/2"	04 54 72 92	15 PSI	6.8	29	N/A
a lightweight corrugated	1E-053 1F-053	25' Length 150' Box 3 @ 50'	5/8"	04 54 72 92	15 PSI	8.7	29	0C-058
s highly flexible. Even at es, it will bend without	1E-054 1F-054	25' Length 50' Length	3/4"	04 54 72 92	15 PSI	10.0	29	0C-034
actured from durable	1E-055 1F-055	25' Length 50' Length	1"	04 54 72 92	15 PSI	14.0	29	0C-100
ate (EVA), it contains no is resistant to corrosion,	1E-056 1F-056	25' Length 50' Length	1-1/4"	04 54 72 92	13 PSI	20.0	29	0C-114
nd ultraviolet light. The re makes for a quiet flow.	1E-057 1F-057	25' Length 50' Length	1-1/2"	04 54 72 92	9 PSI	26.0	29	0CH-112
cuum and low pressure t's also commonly used	1E-058 1F-058	25' Length 50' Length	1-3/4"	04 54 72 92	7 PSI	34.0	28	N/A
bundling assortments of	1E-093 1F-093	25' Length 50' Length	2"	04 54 72 92	5 PSI	52.0	20	0C-200
-								

Coiled Tubing

lexi-Corr is a lightweight corrugated tubing that is highly flexible. Even at low temperatures, it will bend without kinking. Manufactured from durable Ethyl Vinyl Acetate (EVA), it contains no plasticizers and is resistant to corrosion, aging, ozone and ultraviolet light. The smooth inner-bore makes for a quiet flow. An excellent vacuum and low pressure blower tubing, it's also commonly used as a conduit for bundling assortments of tubing and wiring.

Hose – Purflex®

urflex™ is a clear, heavy-wall, 85A durometer polyurethane hose reinforced with a tough dacron polyester innerbraid. The reinforcement provides a greater working pressure while maintaining flexibility and kink resistance. The ether-based compound is ideal for transferring abrasive materials or media that would be damaging to PVC and other hoses.

Features

- Resistant to abrasion, oils, and fungus.
- Tough; withstands constant flexing.
- Light weight.
- Very flexible in subzero temperatures.
- Bondable into multi-ribbon hoses.
- Retains original values; does not harden or crack with age.

Specifications

-40°F to +165°F **Temperature Range:** To 28" Hg. Vacuum Rating: **Durometer:** 85A

Tube Markings: FW Specifications Working Pressure: 4:1 Safety Factor

UV Stabilized:

Base Resin Compliance: NSF61, USPVI

Meets UL94HB,

Coiled Tubing

Recommended Fitting: Barb

Systems, nc. www.airoil.com Purflex[™] is only available in the clear

			<i>y</i> ,						
Part Number & Color Code	Packaging Unit Size	0.D.	I.D.	Wall	Working @75°F/25°C	Pressure @150°F/65°C	lbs./ 100'	Bend Radius	Fitting
1A-800-10	100' Reel	.470"	1/4"	.110"	230 PSI	150 PSI	6.0	3/4"	В
1E-800-10	Cut Length	.470	1/4	.110	230 1 31	130 1 31	0.0	3/4	Б
1A-801-10	100' Reel	.630"	3/8"	.127"	155 PSI	100 PSI	9.9	1-1/2"	В
1E-801-10	Cut Length	.030	3/0	.127	100 F31	100 F31	9.9	1-1/2	Ь
1A-802-10	100' Reel	.750"	1/2"	.125"	125 PSI	80 PSI	12.0	2"	В
1E-802-10	Cut Length	.750	1/2	.125	123 F31	00 F31	12.0	۷	D
1A-803-10	100' Reel	.905"	E /0"	.140"	105 PSI	70 PSI	16.4	2-3/4"	В
1E-803-10	Cut Length	.905	5/8"	.140	105 PSI	70 PSI	10.4	2-3/4	В
1A-804-10	100' Reel	1.025"	2 /4"	1.27"	00 DCI	60 PSI	10.6	3"	В
1E-804-10	Cut Length	1.025	3/4"	.137"	90 PSI	00 PSI	18.6	3	В
1A-805-10	100' Reel	1 200"	1 "	150"	7F DOI	FO DOL	20.2	F."	D
1E-805-10	Cut Length	1.300"	1"	.150"	75 PSI	50 PSI	26.2	5"	В

Variations Available:

Coiling • Cutting • Bonding • Printing • Packaging

Hose - Flexeel®

Specifications

Temperature Range: -40°F to +165°F Pressure Rating @ 70°F: 200 P.S.I. Vacuum Rating: To 20" Hg.

Diameter Tolerances

Coiled Tubing

1/4" - 5/16" ±.005" 3/8" - 1/2" ±.010"

Durometer: 85A

Tube Markings: FW Specifications **Working Pressure:** 4:1 Safety Factor

UV Stabilized: Yes

Base Resin Compliance: NSF61, USPVI Meets UL94HB,

Recommended Fittings: Reusable with Strain Relief

lexeel® Polyurethane Reinforced Hose is an excellent alternative to much bulkier rubber hoses. Extremely lightweight and tough, it is ideal for either outdoor or indoor use. Flexeel retains its flexibility even in cold environments. Available in:

Transparent Blue

Transparent Red

Transparent Yellow

Flexeel® Polyurethane Straight Hose

Part Number & Color Code	Length	0.D.	I.D.	Colors	Fitting
PFE4025 PFE40254 PFE40256	25'	3/8"	1/4"	T IR TY	None Reusable Strain Relief 1/4 MPT Reusable Strain Relief 3/8 MPT
PFE4050 PFE40504 PFE40506	50'	3/8"	1/4"	TOP IV	None Reusable Strain Relief 1/4 MPT Reusable Strain Relief 3/8 MPT
PFE4100 PFE41004 PFE41006	100'	3/8"	SYA,C	T TR TY	None Reusable Strain Relief 1/4 MPT Reusable Strain Relief 3/8 MPT
PFE4500	500'	3/8"	1/4"	TRT	None
PFE42000	2000	3/8"	1/4"	T TR TY	None
PFE5025 PFE50254	25	.473"	5/16"	TRY	None Reusable Strain Relief 1/4 MPT
PFE50504 PFE50504	50'	.473"	5/16"	T TR TY	None Reusable Strain Relief 1/4 MPT
PFE5100	100'		5/16"	TRY	None Reusable Strain Relief 1/4 MPT
PFE5250	250'		5/16"	T TR TY	None
PFE51500	1500'	.473"	5/16"	T TR TY	None
PFE6025 PFE60254 PFE60256	25'	9/16"	3/8"	T TR TY	None Reusable Strain Relief 1/4 MPT Reusable Strain Relief 3/8 MPT
PFE60504 PFE60506	50'	9/16"	3/8"	TRY	None Reusable Strain Relief 1/4 MPT Reusable Strain Relief 3/8 MPT
PFE6100 PFE61004 PFE61006	100'	9/16"	3/8"	T IR TY	None Reusable Strain Relief 1/4 MPT Reusable Strain Relief 3/8 MPT
PFE6200	200'	9/16"	3/8"	T TR TY	None
PFE61000	1000'	9/16"	3/8"	T TR TY	None
PFE8025 PFE80258	25'	.700"	.440"	TR	None Reusable Strain Relief 1/2 MPT
PFE8050 PFE80508	50'	.700"	.440"	TR	None Reusable Strain Relief 1/2 MPT
PFE8100 PFE81008	100'	.700"	.440"	TR	None Reusable Strain Relief 1/2 MPT
PFE8200	200'	.700"	.440"	TR	None
PFE8500	500'	.700"	.440"	TR	None
	C	oiling •	Colors	s • Cutting • B	Variations Available: onding • Printing • Packaging

Flexeel® with Reusable Strain Relief Fitting

Coiled Hose - Flexeel® Coiled Hose

Flexeel® with Reusable Fitting ▶

Features

- Withstands constant flexing, even in subzero conditions.
- Kink & abrasion resistant.
- Much lighter than other comparably sized hoses.
- Very small bend radius.
- Resistant to chemicals, water, fuel, oil and fungus.
- Non-marring to furniture and auto finishes.
- * In addition to color choice, select fittings for both ends of the coil.

Flexeel® - Polyurethane Coiled Hose with Reusable Strain Relief Fittings

	io otidili		ittiiijo				700			38	S-1.1
Part Number, Fitting & Color Code	Fitting	g*	Color	Material Length	Working Length	Retracted Length	0.D.	I.D.	Coil O.D.	Working Pressure	Weight
PUE14-15 PUE14-20 E	(1) 1/4' B= (2) 1/4'	Rigid & Rigid & Swivel Swivel Rigid	T TR TY	10' 15' 20' 25'	8.5 ' 12.5 ' 17 ' 21 '	9" 14.5" 19.5" 26.5"	N [®] OIY	1/4"	1 3/4"	200 PSI	.41 lbs. .59 lbs. .74 lbs. .88 lbs.
PUE516-20	A = (1) 3/8' $(1) 3/8'$	" Rigid " Rigid & " Swivel " Swivel	TRY	10' 15' 20' 25'	8.5 ' 12.5 ' 17 '	9.5 15.5" 21" 26.5"	.473"	5/16 "	2 3/16"	200 PSI	.68 lbs. .89 lbs. 1.11 lbs. 1.32 lbs.
PUE38-10 PUE38-15 FUE38-20 PUE38-25	$_{-}$ = (2) 3/8' A= (1) 3/8' (1) 3/8'	Rigid Rigid Rigid & Swivel Swivel	T TR TY	10' 15' 20' 25'	28.5 ' 12.5 ' 17 ' 21 '	10.5" 16.7" 23" 29"	9/16"	3/8"	2 7/8"	200 PSI	1.00 lbs. 1.40 lbs. 1.85 lbs. 2.25 lbs.
ish Douachle Fiss	i-mara										

with Reusable Fittings									
PRE14-10= (2) PRE14-15 A= (1) PRE14-20 (1) PRE14-25 B= (2)	1/4" Rigid 1/4" Rigid & T TR 1/4" Swivel	10' 15' 20' 25'	8.5 ' 12.5 ' 17 ' 21 '	9" 14.5" 19.5" 26.5"	3/8"	1/4"	1 3/4"	200 PSI	.41 lbs. .59 lbs. .74 lbs. .88 lbs.
PRE516-10	1/4" Swivel 3/8" Swivel	10' 15' 20' 25'	8.5 ' 12.5 ' 17 ' 21 '	9.5" 15.5" 21" 26.5"	.473"	5/16"	2 3/16"	200 PSI	.68 lbs. .89 lbs. 1.11 lbs. 1.32 lbs.
PRE38-10 ————————————————————————————————————	1/4" Rigid 1/4" Rigid & 1/4" Swivel 1/4" Swivel T TR 3/8" Rigid 3/8" Rigid & 3/8" Swivel	10' 15' 20' 25'	8.5 ' 12.5 ' 17 ' 21 '	10.5" 16.7" 23" 29"	9/16"	3/8"	2 7/8"	200 PSI	1.00 lbs. 1.40 lbs. 1.85 lbs. 2.25 lbs.

Variations Available: Colors • Bonding • Printing • Packaging

* In addition to color choice, select fittings for both ends of the coil.

Coiled Tubing

Coiled Hose – Flexcoil®

Specifications

Temperature Range: -40°F to +125°F **Vacuum Rating:** To 28" Hg.

1/4" to 9/16":

Diameter Tolerances:

±.005"

Tube Markings: Working Pressure: Working Length: FW Specifications 3:1 Safety Factor 80-90% of Material

Length

Base Resin Compliances: See Page 6 for

Fre-Thane®
Compliances

lexcoil® is the original tangle free coiled hose. It's made from Freelin-Wade's own Fre-Thane® Polyurethane. Just like our other Fre-Thane tubing, it resists abrasion and kinking. Of course it always springs back to its original shape. Flexcoil is ideal for use with air tools, blow guns, impact wrenches and nailers. It's a great way to keep your work area organized and safe.

Variations are easy. If you don't see the color or length that you want, just ask us. We can configure Flexcoil to perfectly match your requirements. Available in:

B Blue

G Neon Green R Red

Y Yellow

Transparent Blue

In addition to color choice, select fittings for both ends of the coil.

Flexces P - Coiled Dwith Reusable Strain Relief Fittings Material Working Retracted Working Fitting* Color Coil O.D. Weight Length Length Length Pressure 2" .23 lbs. PU316-5 4' 1/4" Rigid (2) 10' PU316-10 _ 8' 6" .34 lbs. A=(1)1/4" Rigid & PU316-15 __-_ 12.5 10 1/4" .46 lbs. 5/16" 3/16" 1 7/8" 160 PSI (1) 1/4" Swivel PU316-20 __-20' 17' 14 1/2" .56 lbs. B = (2)1/4" Swivel 25 20' PU316-25 18 1/2" .68 lbs. PU14-5 5' 4' 2 1/2" .23 lbs. PU14-10 ___-_= (2) 1/4" Rigid 10' 8' 6" .41 lbs. PU14-15 A=(1)1/4" Rigic 15' 12.5 9 1/2" .59 lbs. 1/4" Swivel PU14-20 (1) 20' 17' 13" 3/8" 1/4" 145 PSI .74 lbs. 2 1/2" 1/4" Swivel PU14-25 25' 20' 16" B = (2) *.88 lbs. Coiled Tubing PU14-30 -8" Rigid 30' 25.5 19" 1.05 lbs. & Hoses 42.5 PU14-50 50' 32 1/2" 1.50 lbs. 10 8' 7 1/2" .68 lbs. PU516-10 ___-_ = (2)3/8" Rigid 12.5 15' PU516-15 -11 1/2" .89 lbs. A = (1)3/8" Rigid 20' 15" PU516-20_ BGRYT 17' 15/32" 2 15/16" 130 PSI 1.11 lbs. 5/16" (1) 3/8" Swivel 25' 19" PU516-25 _ 20' 1.32 lbs. B = (2)3/8" Swivel PU516-30 _ 30 25.5 23" 1.52 lbs. 1.00 lbs. PU38-10 __--_ 10 8' 5 1/2" 1/4" Rigid 4 = (2)15' 12.5 8 1/2" 1.40 lbs. PU38-15 (2) 3/8" Rigid 17' 11" 1.85 lbs. PU38-20 20' BGRYT 9/16" 135 PSI A = (1)3/8" Rigid 3/8 4 1/8' 25' 20' 14" 2.25 lbs. PU38-25 (1)3/8" Swivel PU38-30 30' 25.5 17" 2.63 lbs. B = (2)3/8" Swivel PU38-50 50 42.5 27 1/2" 3.23 lbs. Variations Available:

Colors • Printing • Packaging

Coiled Hose – Flexcoil®

Flexcoil® with Reusable Fitting See page 32 for Fre-Thane coils without fittings

Flexcoil® – Coiled Polyurethane Hose with Reusable Fittings

With House		.uiig	10										20 100 200
Part Number, Fitting & Color Code	Fir	tting*		Color		Working Length	Retracted Length	0.D.	I.D.	Coil O.D.	Working Pressure	Weight	
PR532-10 PR532-15 PR532-20 PR532-25 PR532-30	B= (2)	1/4"	Swivel	BGRY T	10' 15' 20' 25' 30'	8' 12.5' 17' 20' 25.5'	7" 9 1/2" 12 1/2" 15 1/2" 19"	1/4"	.160") 1/2"	150 PSI	.29 lbs. .37 lbs. .46 lbs. .54 lbs. .62 lbs.	
PR316-5 PR316-10 PR316-15 PR316-20 PR316-25	B= (2)	1/4"	Swivel	BGRYT	5' 10' 15' 20' 25'	4' 8' 12.5' 17' 20'	2" 6" 10 1/4" 14 1/2" 18 1 2"	5×16"	3/16"	1 7/8"	160 PSI	.23 lbs. .34 lbs. .46 lbs .56 lbs.	
PR14-5 PR14-10 PR14-15 PR14-20 PR14-25 PR14-30 PR14-50	= (2) A= (1) (1) B= (2)	1/4" 1/4" 1/4" 1/4"		BGRY T	5' 10' 15' 20' 25' 30' 50'	4' 8' 12.5' 17' 20' 25.5' 42.5'	2 1/2"	3/8"	1/4"	2 1/2"	145 PSI	.26 lbs. .41 lbs. .59 lbs. .74 lbs. .88 lbs. 1.05 lbs. 1.50 lbs.	
PR516-10 PR516-15 PR516-20 PR516-25 PR516-30	4B= (2) B= (2)	1/4" 3/8"	Swivel Swivel	RGDYT	10' 15' 20' 25' 30'	8' 12.5' 17' 20' 25.5'	7 1/2" 11 1/2" 15" 19" 23"	15/32"	5/16"	2 15/16"	145 PSI	.68 lbs. .89 lbs. 1.11 lbs. 1.32 lbs. 1.52 lbs.	
PR38-15	4= (2) 4A= (1) (1) 4B= (2) == (2) A= (1) (1) B= (2)	1/4" 1/4" 1/4" 3/8" 3/8" 3/8"	Rigid Rigid	BGRY T	10' 15' 20' 25' 30' 50'	8' 12.5' 17' 20' 25.5' 42.5'	5 1/2" 8 1/2" 11" 14" 17" 27 1/2"	9/16"	3/8"	4 1/8"	135 PSI	1.00 lbs. 1.40 lbs. 1.85 lbs. 2.25 lbs. 2.63 lbs. 3.23 lbs.	Coiled Tubing & Hoses
PR12-10 PR12-15 PR12-20 PR12-25 PR12-30 PR12-50	B= (2)	1/2"		BGRYT	10' 15' 20' 25' 30' 50'	8' 12.5' 17' 20' 25.5' 42.5'	7" 11 3/4" 16 1/2" 23" 28" 40"	3/4"	.467"	5"	155 PSI	2.14 lbs. 2.95 lbs. 3.77 lbs. 4.60 lbs. 5.35 lbs. 7.75 lbs.	I

Variations Available:Colors • Printing • Packaging

* In addition to color choice, select fittings for both ends of the coil.

Request a Quote or Find a Distributor: 888-373-9233

Coiled Tubing – Fre-Thane® Coils

Specifications

Temperature Range: -40°F to +165°F Vacuum Rating: To 28" Hg.

Diameter Tolerances: ±.005"

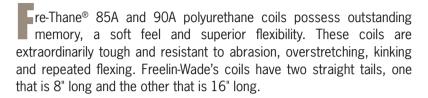
Working Pressure: 3:1 Safety Factor UV Stabilized: 85A

Base Resin Compliances: See Page 6 for

Fre-Thane®
Compliances

Recommended Fittings:

Barb, Push-In (95A)



Variations are easy. If you don't see the color or length that you want, just ask us. We can configure Fre-Thane Coils to perfectly match your requirements.

Fre-Thane® Single Tule Polyurethane Coils

~	Part Number & Color Code	0.D.	I.D.	DUR	Standard Colors		Pressure @150°F/65°C	Material Length	Working Length	Retracted Length	Coil I.D.
	1W-013	1/8"	.066"	85A	(1) (2) (4) (5) (6) (7) (8) (9) (1) (1) (1) (12) (14) (25) (26) (27) (28) (29) (32) (45) (46)	115 PSU	45 PSI	10'	8'	8"	3/8"
	1W-025	1/4"	1/8"	85A	(1) (2) (4) (5) (6) (7) (8) (9) (10) (11) (12) 25 (26) (27) (28) (29) (32) (45) (46)	125 PSI	50 PSI	10'	8'	5"	3/4"
	1W-132	1/4"	.159"	90A	01 04 05 06 07 08 09 10:11 14 25 27	* 115 PSI	45 PSI	10'	8'	9-1/4"	3/4"
THE REAL	1W-005 1Z-005	3/8"	1/4"	90A	(1) (4) (5) (6) (7) (8) (2) (10) (11) 14 25 (26) (27) 28 (48) (49)	105 PSI	40 PSI	10' 25'	8' 20'	8" 22"	1-1/4"
	1W-151 1X-151 1Y-151 1Z-151	1/4" 1/4" 1/4" 1/4"	.16" .16" .16" .16"	95A 95A 95A 95A	0) 02 04 03 05 07 08 09 10: (1) 12 25 26 27 28 37 46	155 PSI	60 PSI	10' 15' 20' 25'	8' 12.5' 17' 20'	7" 9.5" 12.5" 15.5"	1"
Coiled Tubing	1W-152 1X-152 1Y-152 1Z-152	3/8" 3/8" 3/8" 3/8"	.245" .245" .245" .245	95A 95A 95A 95A	00 04 05 06 07 08 09 10: (11) 25 27 28 37 45 46	150 PSI	60 PSI	10' 15' 20' 25'	8' 12.5' 17' 20'	6" 9.5" 13" 16"	1-3/4"

Variations Available:

Colors • Cutting • Bonding • Printing • Packaging • Sizes

Fre-Thane® Multi-Bore Polyurethane Coils

Part Number & Color Code	0.D.	I.D.	DUR	Standard Colors		Pressure @150°F/65°C	Material Length	Working Length	Retracted Length	Coil I.D.
2V-006	1/8"	1/16"	Twin 90A	(1) :10:14	160 PSI	65 PSI	7'	5'	6"	3/4"
2W-016	1/4"	1/8"	Twin 85A	0 04 05 (10): 27	130 PSI	50 PSI	10'	8'	12.5"	1"
3W-022	1/4"	1/8"	Triple 85A	0 :10:	130 PSI	50 PSI	10'	8'	16"	1-1/4"
4W-023	1/4"	1/8"	Quad 85A	0 (10):	130 PSI	50 PSI	10'	7'	21"	1-1/4"

Variations Available:Cutting • Printing • Packaging

Coiled Tubing – Nylon 11

reelin-Wade's Nylon 11 coiled tubing is tough and abrasion resistant. They are fitted with durable brass male swivel compression fittings and spring guards that are preassembled on each hose end. Bulk hoses are offered in 100 foot length for users wanting to assemble their own hoses.

Our Nylon 11 Twin Hose has all of the same features but with the added benefit of two hoses bonded together. An intermittent bond allows for easy fitting installation and eliminates taping or tie wrapping hoses together in twin line applications. One line is yellow and the second is a natural translucent color which allows for visual flow verification.

The difference between the Self-Storing Hose and the Mini Coils is that the Self-Storing Hose includes fittings. A twin tube, as seen in the photograph, is also available.

- Economical and lightweight.
- Self retracting.
- Resists oil, grease and corrosion.
- Pre-sealed threads on swivel fittings.



Specifications

Temperature Range: Vacuum Rating: Diameter Tolerances: Tube Markings: Working Pressure: -40°F to +180°F To 28" Hg. ±.004" FW Specifications 4:1 Safety Factor

Coiled Tubing

Nylon 11 Self-Storing Hose

Part Number	O.D.	I.D.	Coil O.D.	Working @75°F/25°C	Pressure @150°F/65°C	Material Length	Working Length	Retracted Length	MPT Fitting	Approximate Weight
N14-12B						12	9'	5-1/4"	1/4"	.375 lbs.
N14-25B	.309"	1 //#	2 1 /2"	185 PSI	110 PSI	261	19'	10"	1/4"	.62 lbs.
N14-50B	.309	1/4"	3-1/2"	100 F31	110 F31	50'	37.5'	19-3/4"	1/4"	.937 lbs.
N14-100						100'	75'	39-1/2"	none	1.37 lbs.
N38-12B						12'	9'	4-1/2"	3/8"	.687 lbs
N38-25B	.470"	2 /0"	5-5/8"	165 PSI	160 PSI	25'	19'	9"	3/8"	1.62 lbs.
N38-50B	.470	3/8"	3-3/6	100 F31	FOUFSI	50'	37.5'	18-1/4"	3/8"	1.75 lbs.
N38-100				. 0		100'	75'	36-3/4"	none	4 lbs.
N12-12B					,	12'	9'	4-1/4"	1/2"	.375 lbs.
N12-25B	COE"	1 /0"	9"	4 30 DCI	110 PSI	25'	19'	8-1/2"	1/2"	.562 lbs.
N12-50B	.625"	1/2"	9	C170 PSI	110 PSI	50'	37.5'	15-1/2"	1/2"	.937 lbs.
N12-100			.)			100'	75'	31-1/2"	none	1.37 lbs

Variation Available:Packaging

Nylon 11 Mini Coik

Part Number & Color Code	Standard Colors	Working @75°F/25°C	Pressure @150°F/65°C	Material Length	Working Length	Retracted Length	0.D.	I.D.	Coil O.D.
N1063		<mark>08</mark> 350 PSI 210 PS		4.4'	3-1/2'	3"	5/32"	.106"	
N1066	01 03 05 06 07 08		210 DCI	8.8'	7'	6"			1.312"
N10612	09:10:		210 F 31	17.5'	14'	12"			
N10624				35'	28'	24"			
N1706				5'	4'	6"			
N1709	01 03 05 06 07 08			6.9'	5-1/2'	9"			
N17012	(1) (1) (2) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1	330 PSI	200 PSI	9.4'	7-1/2'	12"	1/4"	.170"	1.750"
N17024				19.4'	15-1/2'	25"			
N17036				28'	22-1/2'	36"			

Variations Available:

Colors • Printing • Packaging • Sizes

Jacketing & Accessories

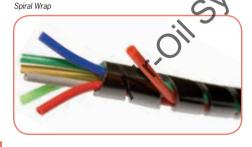
Jacketing your tubing lines is an attractive and easy way to organize your tubing. Save time over tie wrapping. It enhances the appearance while making line tracing easier while improving safety.

PVC Jacketed Bundle



Expandable Webbing





Tube Cutters

Jacketing &



PVC Jacketed Bundles

Freelin-Wade's PVC Jacketed Bundles are an excellent way to color code a pneumatic system in a neat flexible package. Ten colors of Fre-Thane® 85A Polyurethane tubing, jacketed with a clear flexible PVC. Variations include bundling wire, different tube sizes, materials, colors and coiling.

10A-025-00 100' Bag 1/4" 1/8"	Part Number & Color Code	Packaging Unit Size	0.D.	I.D.	Bundled Colors	lbs./ 100'	Fitting
10A-025-00 100' Bag 1/4" 1/8" 00 00 00 00 00 00 00 00 00 00 00 00 00			1/8"	.066"	02 04 05 06 07 08 09 :10:11 12	7.0	В
10E-025-00 Cut Length ;10,(11)	10A-025-00 10E-025-00	100' Bag Cut Length	1/4"	1/8"	(10:(11) 12	21.0	В

Variations Available: Bundle your choice of tubing and wires

Expandable Webbing

Expandable Webbing can expand up to three times its size. The webbing is a polyester sleeve that allows heat and humidity to escape. Expandable Webbing is flexible and easy to install. Available only in black.

	Part Number & Color Code	Pack Unit	nging Size	Minimum Size	lbs./ 100'
	1J-126-01	25'	Bag		
	1D-126-01	100'	Box	1/4"	.2
	1B-126-01	500'	Reel		
	1J-127-01	25'	Bag		
	1D-127-01	100'	Box	1/2"	.8
	1B-127-01	500'	Reel		
	14-128-01	25'	Bag		
1	1D-128-01	100'	Box	3/4"	1.2
	1B-128-01	500'	Reel		

Spiral Wrap

Spiral Wrap is made from a spiral cut of low density polyethylene material. It easily wraps around tubing and allows for easy branching of contents.

Part Number & Color Code		0.D.	I.D.	Standard Colors	lbs./ 100'
1J-078	25' Bag				
1D-078	100' Box	1/2"	3/8"	(1 0)	3.4
1A-078	250' Reel				

Tubing Cutters & Replacement Blades

Suitable for 1/8" - 3/4" O.D. tubing. Keep one where you have tubing.

Tubing Cutter Part Number	Description	
PXC058	Black Tubing Cutter	
PXC058B	Blue Tubing Cutter	
PXC058R	Red Tubing Cutter	
PXC058-L	Black Tubing Cutter w/Red Leash	

Replacement I Part Numb		scription
PXC059	9 Sin	gle Blade
PXC059-I	P5	5-Pack
PXC059-P	10 1	LO-Pack

Jacketing & Accessories

Hose Cutter

Our heavy duty Hose Cutter will cut plastic tubing or hose up to 1" O.D. Reinforced hose can be cut perfectly with ease.

Hose Cutter Part Number	Description
PXC098R	Red Hose Cutter
PXC099M	Single Replacement Blade



Hose Cutter

Tubing Marker Clips

These easy-snap clips will not damage tubing. The kit consists of 50 each numerals 0 through 9 and 50 each of 14 different letters: A. B. C. D, E, F, G, H, J, P, R, X, Y, Z. Comes in a convenient plastic storage case. Refills are available.

Marker Clip Part Number	Fits Tubing Size
TMC-02	1/8"
TMC-04	1/4"

Marker Clip Part Number	Fits Tubing Size
TMC-05	5/32"
TMC-06	3/8"



Tubing "H" Clips are an easy and inexpensive way to route dual tubing or hose runs. Conveniently attached via the countersunk center screw hote. Tubing "H" Clips neatly and safely secure tubing for a clean profession look. Manufactured from black Polyacetal plastic with a read of 40° to + 212°F.

"H" Clip Part Number	Fits Tubing Size
HTC-156-200	.156" – .200"
HTC-201-325	.201"325"
HTC-326-400	.326"400"
HTC-401-485	.401"485"

"H" Clip Part Number	Sits Tubing Size
HTC-486-576	.486" – .575"
HTC-576-675	.576" – .675"
HTC 676-825	.676" – .825"
HTC-926-1000	.826" – 1.00"



Tube Channels

Tube Channels

Our tube channel mounts are perfect for securing multiple tubing lines. The small 10-tube channel can be mounted with its pressure sensitive adhesive backing or with a #4 screw. Available in three sizes to fit 5/32", 3/16" and 1/4" tubing. The large style channel holds 3/8" and 1/2" tubing and mounts with two screws.

Large Channel Part Number	Tubing Size O.D.	Number of Channels
PTC6-7	3/8	7
PTC6-10	3/8	10
PTC8-6	1/2	6

Small Channel Part Number	Tubing Size O.D.	Number of Channels
TC5-10	5/32	10
TC3-10	3/16	10
TC4-10	1/4	10





Tube Gauges

A handy way to measure tubing O.D. and I.D. It measures in standard and metric sizes. Add a couple to your order today.

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.

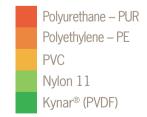
	PUR	PE	PVC	N	Kynar
Acetic Acid, Glacial	4	2	4	-	1
Acetic Acid, 30%	4	1	4	2	1
Acetone	4	2	4	1	4
Acetylene	1	4	1	1	1
Alkazene	4	-	-	-	-
Aluminum Chloride (ag)	3	2	1	-	1
Aluminum Nitrate (ag)	3	-	2	-	1
Ammonia Anhydrous	4	2	1	-	4
Ammonia Gas (cold)	3	-	3	1	4
Ammonia Gas (hot)	4	-	-	1	4
Ammonium Chloride (aq) 40%	2	1	1	-	1
Ammonium Sulfate (ag)	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	-	_		- 4
ASTM Fuel C	3	1	4		
Barium Chloride (aq)	1	2	1		
Beer Chloride (aq)	2	2	1.	1	
	4	1	1	1	1
Beet Sugar Liquors	3	4		1	1
Benzene		4	3	Ţ	
Benzine	2	-		-	-
Blast Furnace Gas	4 4.4	5/	1	-	
Bleach Solutions	-	1	1	-	1
Borax	4	-		-	1
Boric Acid	4	1	1	-	1
Brake Fluid		-			
Brine	2	-	3	-	1
Bromine Water	4	-	3	4	1
Bunker Oil	2	-	-	- 1	-
Butane	1	3	3		1
Butter				1	_
	1	-	-	-	-
Butyl Alcohol (Butanol)	3	1	3	1	1
Butylene	3	1	3	1	1
Butylene Calcium Chloride (aq)	3 4 1	1 1 1	3 1 3	1	1 1 1
Butylene Calcium Chloride (aq) Calcium Hydroxide (aq)	3 4 1 2	1 1 1	3 1 3 2	1 1	1 1 1 1
Butylene Calcium Chloride (aq) Calcium Hydroxide (aq) Calcium Nitrate (aq)	3 4 1 2	1 1 1	3 1 3	1 1	1 1 1
Butylene Calcium Chloride (aq) Calcium Hydroxide (aq) Calcium Nitrate (aq) Calcium Sulfide (aq)	3 4 1 2	1 1 1	3 1 3 2	1 1	1 1 1 1 1
Butylene Calcium Chloride (aq) Calcium Hydroxide (aq) Calcium Nitrate (aq) Calcium Sulfide (aq) Cane Sugar Liquors	3 4 1 2 1 1 4	1 1 1 1	3 1 3 2 1	1 1 - 1	1 1 1 1 1
Butylene Calcium Chloride (aq) Calcium Hydroxide (aq) Calcium Nitrate (aq) Calcium Sulfide (aq)	3 4 1 2 1 1 4 3	1 1 1 1 -	3 1 3 2 1 - 1 3	1 1 - 1	1 1 1 1 1 1
Butylene Calcium Chloride (aq) Calcium Hydroxide (aq) Calcium Nitrate (aq) Calcium Sulfide (aq) Cane Sugar Liquors	3 4 1 2 1 1 4 3	1 1 1 1 - - 4 2	3 1 3 2 1 - 1 3 1	1 1 - 1	1 1 1 1 1 1 1
Butylene Calcium Chloride (aq) Calcium Hydroxide (aq) Calcium Nitrate (aq) Calcium Sulfide (aq) Calcium Sulfide (aq) Cane Sugar Liquors Carbolic Acid	3 4 1 2 1 1 4 3	1 1 1 1 -	3 1 3 2 1 - 1 3	1 1	1 1 1 1 1 1
Butylene Calcium Chloride (aq) Calcium Hydroxide (aq) Calcium Nitrate (aq) Calcium Sulfide (aq) Cane Sugar Liquors Carbolic Acid Carbon Dioxide	3 4 1 2 1 1 4 3	1 1 1 1 - - 4 2	3 1 3 2 1 - 1 3 1	1 1	1 1 1 1 1 1 1
Butylene Calcium Chloride (aq) Calcium Hydroxide (aq) Calcium Hydroxide (aq) Calcium Sulfide (aq) Cane Sugar Liquors Carbolic Acid Carbon Dioxide Carbonic Acid	3 4 1 2 1 1 4 3 1 4	1 1 1 1 - - 4 2 2	3 1 3 2 1 1 3 1 1	1 1	1 1 1 1 1 1 -
Butylene Calcium Chloride (aq) Calcium Hydroxide (aq) Calcium Nitrate (aq) Calcium Sulfide (aq) Calcium Sulfide (aq) Cane Sugar Liquors Carbolic Acid Carbon Dioxide Carbon Monoxide Carbon Tetrachloride	3 4 1 2 1 1 4 3 1 4	1 1 1 1 - - 4 2 2 2	3 1 3 2 1 1 3 1 1	1 1 - 1	1 1 1 1 1 1 1 -
Butylene Calcium Chloride (aq) Calcium Hydroxide (aq) Calcium Nitrate (aq) Calcium Sulfide (aq) Cane Sugar Liquors Carbolic Acid Carbon Dioxide Carbon Monoxide Carbon Monoxide Carbon Carbolic Acid Carbon Hydroxide Carbon Monoxide Carbon Tetrachloride Castor Oil	3 4 1 2 1 1 4 3 1 4	1 1 1 1 - - 4 2 2 2 4	3 1 3 2 1 1 3 1 1 1 4	1 1	1 1 1 1 1 1 1 -
Butylene Calcium Chloride (aq) Calcium Hydroxide (aq) Calcium Hydroxide (aq) Calcium Sulfide (aq) Cane Sugar Liquors Carbolic Acid Carbon Dioxide Carbon Monoxide Carbon Tetrachloride Castor Oil Chlorine (dry)	3 4 1 2 1 1 4 3 1 4 1 4	1 1 1 1 - - 4 2 2 2 2 4 1	3 1 3 2 1 	1	1 1 1 1 1 1 - 1 1 1 1 1 1
Butylene Calcium Chloride (aq) Calcium Hydroxide (aq) Calcium Nitrate (aq) Calcium Sulfide (aq) Cane Sugar Liquors Carbolic Acid Carbon Dioxide Carbon Monoxide Carbon Monoxide Carbon Carbolic Acid Carbon Hydroxide Carbon Monoxide Carbon Tetrachloride Castor Oil	3 4 1 2 1 1 4 3 1 4 1 4 1 4	1 1 1 1 - - 4 2 2 2 4 1 3	3 1 3 2 1 - 1 3 1 1 1 4 1 4	1 1 1 1 - - - - 3	1 1 1 1 1 1 - 1 1 1 1 1 1 1 1 1
Butylene Calcium Chloride (aq) Calcium Hydroxide (aq) Calcium Nitrate (aq) Calcium Nitrate (aq) Calcium Sulfide (aq) Cane Sugar Liquors Carbolic Acid Carbon Dioxide Carbon Monoxide Carbon Monoxide Carbon Tetrachloride Castor Oil Chlorine (dry) Chlorore (wet) Chloroform	3 4 1 2 1 1 4 3 1 4 1 4 1 4 4 4 4 4 4 4 4 4 4 4	1 1 1 1 - - 4 2 2 2 4 1 3 3	3 1 3 2 1 1 3 1 1 1 4 1 4	1 - 1 - 1 - - - - - 3 - 4 4	1 1 1 1 1 1 1 - 1 1 1 1 1 1 1 1 1 1 1 1
Butylene Calcium Chloride (aq) Calcium Hydroxide (aq) Calcium Hydroxide (aq) Calcium Sulfide (aq) Cane Sugar Liquors Carbolic Acid Carbon Dioxide Carbon Monoxide Carbon Etrachloride Castor Oil Chlorine (dry) Chlorine (wet) Chlororox Chlorox	3 4 1 2 1 1 4 3 1 4 1 4 1 4 4 4 4 4 4 4 4 4	1 1 1 1 - - 4 2 2 2 2 4 1 3 3 4	3 1 3 2 1 1 3 1 1 1 4 1 4	1 1 - 1 1 3 3 - 4 4 3 3 -	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Butylene Calcium Chloride (aq) Calcium Hydroxide (aq) Calcium Nitrate (aq) Calcium Nitrate (aq) Calcium Sulfide (aq) Cane Sugar Liquors Carbolic Acid Carbon Dioxide Carbonic Acid Carbon Edardoride Carbon Tetrachloride Castor Oil Chlorine (dry) Chlorine (wet) Chloroform Chlorox Chlorox Chromic Acid 50%	3 4 1 2 1 1 4 3 1 4 1 4 4 1 4 4 4 4 4 4 4 4 4 4	1 1 1 1 1 2 2 2 2 4 1 3 3 4	3 1 3 2 1 1 3 1 1 1 4 1 4 - 4	1 1 1 1 - - - - 3 3 - 4 4 3	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Butylene Calcium Chloride (aq) Calcium Hydroxide (aq) Calcium Nitrate (aq) Calcium Nitrate (aq) Calcium Sulfide (aq) Cane Sugar Liquors Carbonic Acid Carbon Dioxide Carbon Monoxide Carbon Monoxide Carbon Tetrachloride Castor Oil Chlorine (dry) Chlorox Chlorox Chromic Acid 50% Citric Acid	3 4 1 2 1 1 4 3 1 4 1 4 4 4 4 4 4 4 4 4 4	1 1 1 1 - - 4 2 2 2 2 4 1 3 3 4	3 1 3 2 1 - 1 3 1 1 1 4 1 4 - 4 - 4 -	1 1 1 1 1 - - - 3 3 - 4 4 3 - 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Butylene Calcium Chloride (aq) Calcium Hydroxide (aq) Calcium Hydroxide (aq) Calcium Hydroxide (aq) Calcium Sulfide (aq) Cane Sugar Liquors Carbolic Acid Carbon Dioxide Carbon Monoxide Carbon Monoxide Carbon Tetrachloride Castor Oil Chlorine (dry) Chlorine (wet) Chlorox Chromic Acid 50% Citric Acid Coal Tar (Creosote)	3 4 1 2 1 1 4 3 1 4 1 4 4 4 4 4 4 4 4 4 4 4 3 1 1 1 1	1 1 1 1 1 2 2 2 2 4 1 3 3 4 -	3 1 3 2 1 1 1 3 1 1 1 4 4 - 4 -	1 1 1 1 - - - - 3 3 - 4 4 3	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Butylene Calcium Chloride (aq) Calcium Hydroxide (aq) Calcium Nitrate (aq) Calcium Nitrate (aq) Calcium Sulfide (aq) Calcium Sulfide (aq) Cane Sugar Liquors Carbolic Acid Carbon Dioxide Carbonic Acid Carbon Tetrachloride Castor Oil Chlorine (dry) Chlorine (wet) Chloroform Chlorox Chromic Acid 50% Citric Acid Coal Tar (Creosote) Coconut Oil	3 4 1 2 1 1 4 3 3 1 4 1 4 4 4 4 4 4 4 4 4 4 4 4	1 1 1 1 1 2 2 2 2 4 1 3 3 4 - 1 1 1	3 1 3 2 1 1 3 1 1 1 4 4 - 4 - 4 - 4 - 1	1 1 1 1 1 - - - 3 3 - 4 4 3 - 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Butylene Calcium Chloride (aq) Calcium Hydroxide (aq) Calcium Hydroxide (aq) Calcium Hydroxide (aq) Calcium Sulfide (aq) Cane Sugar Liquors Carbolic Acid Carbon Dioxide Carbon Monoxide Carbon Monoxide Carbon Tetrachloride Castor Oil Chlorine (dry) Chlorine (wet) Chlorox Chromic Acid 50% Citric Acid Coal Tar (Creosote)	3 4 1 2 1 1 4 3 1 4 1 4 4 4 4 4 4 4 4 4 4 4 3 1 1 1 1	1 1 1 1 1 2 2 2 2 4 1 3 3 4 -	3 1 3 2 1 1 1 3 1 1 1 4 4 - 4 -	1 1 1 1 1 - - - 3 3 - 4 4 3 - 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

		PUR	PE	PVC	N	Kynar
Copper Cya	anide (ag)	1	2	1	- 11	1
Corn Oil	arride (aq)	1	1	2	-	1
Cotton See		1	1	2	-	1
	ethyl Phenol)	4	4	4	4	1
Cychlohexa Denatured		4	4	4	1	1
Detergent :		3	1	1	-	-
Diesel Oil		2	3	1	-	-
Dioxane	0.1	4	3	-	-	4
Dowtherm Dry Cleanin		3	-	-	-	-
Ethane	ig i iuius	1	-	1	-	-
Ethyl Acryla	ate	4	-	-	-	1
	ol (Ethanol)	4	2	3	3	1
Ethyl Benzi		4	-	-	-	-
Ethyl Cellul Ethyl Chlori		2	4	4	-	1
Ethyl Ether	iue	3	4	4	-	1
Ethylene Cl	hloride	4	4	4	-	-
	lycol⁵ (Anti-Freeze)	2	1	1	1	1
Ethylene O		4	3	3	1	1
Ethylene Tr		4	4	1	-	1
Ferric Chlo Ferric Nitra		1	2	1	-	1
Ferric Sulfa		2	1	1	-	1
Fluroine (Li		4	3	4	4	1
Formaldehy		4	2	1	1	1
Formic Acid	d	4	2	1	4	1
Freon 11 Freon 12		1	3	1	1	
Freon 22		4	-	1	1	
Fuel Oil (Bu		2	3	1	-	
Gasoline (1	00 Octane, High Test)	3	4	3	+1	(P
Glue	h	1	1	3		1
Glycerin (G Glycols	iyceroi)	1	1	1	4	1
Green Sulfa	ate Liquor	1		L	• <u>†</u>	-
Hexane	ate Liquoi	2	.4	22	-	1
Hydraulic C		1	V-3	1	-	-
	ic Acid (cold) 37%		2	2	4	1
	ic Acid (hot) 37%	The	-	-	4	1
	c Acid (Conc.) (cold) c Acid (Conc.) (hot)	4	2	-	-	1
Hydrogen (1	1	1	1	1
		3	1	-	-	1
Isobutyl Alc		J				1
Isobutyl Ald Isooctane		2	3	1	-	
Isobutyl Ald Isooctane Isopropyl A	cetate	2	3	4	-	-
Isobutyl Ald Isooctane Isopropyl A Isopropyl A	cetate	2 4 3	3	4	1	1
Isobutyl Ald Isooctane Isopropyl A Isopropyl A	cetate	2 4 3 2	3 1 1	4 - 2	1	1 1
Isobutyl Ald Isooctane Isopropyl A Isopropyl A Isopropyl E Kerosene	cetate	2 4 3	3	4	1	1
Isobutyl Alc Isooctane Isopropyl A Isopropyl E Kerosene Lacquels Vacquels	icetate Icohel (Isopropanol) ther	2 4 3 2 1 4 4	3 1 1 4 1 1	4 2 2 4 3	1 - 1 -	1 1 1
Isobutyl Alc Isooctane Isopropyl A Isopropyl A Isopropyl E Kerosene Lacquer Lacquer Sc	cetate (copic) ((sopropanol) ther	2 4 3 2 1 4 4	3 1 1 4 1	4 - 2 2 4	1 - 1	1 1 1
Isobutyl Alc Isooctane Isopropyl A Isopropyl E Kerosene Lactuer So Lactuer So Lactuer So Lactuer So	cetate lobel (Isopropanol) there	2 4 3 2 1 4 4 1	3 1 1 4 1 1 1	4 2 2 4 3 1	1 - 1	1 1 1 1 -
Isobutyl Alc Isooctane Isopropyl A Isopropyl E Kerosene Lacquer Sc Lacquer Sc	ocetate (copie) (sopropanol) ther olivents oli ate (aq)	2 4 3 2 1 4 4 1 4	3 1 1 4 1 1 1	4 - 2 2 4 3 1 -	1 - 1	1 1 1 1 -
Isobutyl Ald Isopropyl A Isopropyl A Isopropyl E Kerosene Lagduer Sc Lard Lavender C Lavender C Lead Aceta Linseed Oil	ocetate (copie) (sopropanol) ther olivents oli ate (aq)	2 4 3 2 1 4 4 1	3 1 1 4 1 1 1	4 2 2 4 3 1	1 - 1	1 1 1 1 -
Isobutyl Ald Isopropyl A Isopropyl A Isopropyl E Kerosene Lagduer Sc Lard Lavender C Lavender C Lead Aceta Linseed Oil	cetate l(cobo) (Isopropanol) ther blvents bil ate (aq) etroleum Gas	2 4 3 2 1 4 4 1 4 2 1 1-2 ³	3 1 1 4 1 1 1 1 3	4 - 2 2 4 3 1 - 1 1	- 1 - 1 - - - - 1 1 1	1 1 1 - - 1 - 1
Isobutyl Ald Isooctane Isopropyl A Isopropyl A Isopropyl E Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Lubricating Laggree Lubricating Laggree Lubricating Laggree Lubricating Laggree Lubricating Laggree Lubricating Laggree Lubricating Laggree Lubricating Laggree Lubricating Laggree Laggree Laggree Lubricating Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Lag	cetate leobel (Isopropanol) ther olvents olil tite (aq) etroleum Gas i Oils	2 4 3 2 1 4 4 1 4 2 1 1-2 ³ 4	3 1 1 4 1 1 1 1 3 - 4 1-4 ⁴	4 - 2 2 4 3 1 - 1 1 - 2 1-2	- 1 - 1 - - - - 1 1 1	1 1 1 1
Isobutyl Ald Isooctane Isopropyl A Isopropyl A Isopropyl E Lagguer So Lagguer	cetate leobel (Isopropanol) the olvents oil site (aq) etroleum Gas oils o Chloride (aq)	2 4 3 2 1 4 4 1 4 4 2 1 1-2 ³ 4	3 1 1 4 1 1 1 1 3 - 4 1-4 ⁴ 2	4 - 2 2 4 3 1 - 1 1 - 2 1-2 1	1 - 1 - - - - 1 1 1 1	1 1 1 1 - 1 1 1 - 1
Isobutyl Alc Isooctane Isopropyl A Isopropyl A Isopropyl A Isopropyl A Kerosene Lagguer Sc Lagguer Sc Laguer Sc Lagu	cetate leobel (Isopropanol) ther olvents olil tite (aq) etroleum Gas i Oils	2 4 3 2 1 4 4 4 1 4 2 1 1-2 ³ 4 1	3 1 1 4 1 1 1 1 3 - 4 1-4 ⁴ 2 2	4 - 2 2 4 3 1 - 1 1 - 2 1-2 1	1 - 1 - - - - 1 1 1 1	1 1 1 1 - 1 1 1 - 1 1
Isobutyl Ald Isooctane Isopropyl A Isopropyl A Isopropyl E Lagguer So Lagguer	cetate leobel (Isopropanol) the olvents oil site (aq) etroleum Gas oils o Chloride (aq)	2 4 3 2 1 4 4 1 4 4 2 1 1-2 ³ 4	3 1 1 4 1 1 1 1 3 - 4 1-4 ⁴ 2	4 - 2 2 4 3 1 - 1 1 - 2 1-2 1	1 - 1 - - - - 1 1 1 1	1 1 1 1 - 1 1 1 - 1
Isobutyl Alc Isooctane Isopropyl A Isopropyl A Isopropyl A Isopropyl A Kerose of Lagduer Sc Lagduer Sc Ladduer Sc Magnesium Mercury Methane Methyl Ace	cetate Identify (Isopropanol) Identify (Isopropanol)	2 4 3 2 1 4 4 1 4 2 1 1-2 ³ 4 1 3 4	3 1 1 4 1 1 1 1 3 - 4 1-4 ⁴ 2 2 1	4 - 2 2 4 3 1 - 1 1 - 2 1-2 1 1 1 2 4	1 1 - - - - 1 1 1 1 - 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1
Isobutyl Ald Isooctane Isopropyl A Isopropyl A Isopropyl E Kerosene Lagguer Sc Lagguer Sc Magnesium Mercury Methane Methyl Ace Methyl Ace Methyl Ace Methyl Ace	cetate leofol (Ropropanol) ther olvents olite (aq) etroleum Gas (Oils n Chloride (aq) n Hydroxide (aq)	2 4 3 2 1 4 4 4 1 1-2 ³ 4 1 1 4 1 1 3 4 4 4 4 4 4 4 4 4 4 4 4 4	3 1 1 4 1 1 1 1 1 3 - 4 1-4 ⁴ 2 2 2	4 - 2 2 4 3 1 1 - 1 1 1 2 1-2 1 1 1 1 2 4	1 1 - - - - 1 1 1 1 1 1 1	1 1 1 1 - 1 1 1 - 1 1 1 1 1 1 1 1
Isobutyl Ald Isooctane Isopropyl A Isopropyl A Isopropyl A Kerosene Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Lubricating Lye Magnesium Magnesium Mercury Methale Methyl Ace Methyl Ace Methyl Alco	cetate leobel (Ropropanol) ther olvents olvent	2 4 3 2 1 4 4 4 4 4 2 1 1-2 ³ 4 1 4 4 1 1 4 4 4 4 1 1 3 4 4 4 4 4 4 4	3 1 1 4 1 1 1 1 1 3 - 4 1-4 ⁴ 2 2 2 1	4 - 2 2 2 4 3 1 - 1 1 1 2 1-2 1 1 1 2 4 - 1 1	1 1 1 	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Isobutyl Alcisooctane Isopropyl A Isopropy	cetate lebel (Isopropanol) ther bluents bil ste (aq) etroleum Gas o Chloride (aq) n Hydroxide (aq) tate ylate ylate ohol (Methanol) yl Ketone	2 4 3 2 1 4 4 4 1 1-2 ³ 4 1 1 4 1 1 3 4 4 4 4 4 4 4 4 4 4 4 4 4	3 1 1 4 1 1 1 1 1 3 - 4 1-4 ⁴ 2 2 2	4 - 2 2 4 3 1 1 - 1 1 1 2 1-2 1 1 1 1 2 4	1 1 - - - - 1 1 1 1 1 1 1	1 1 1 1 - 1 1 1 - 1 1 1 1 1 1 1 1
Isobutyl Ald Isooctane Isopropyl A Isopropyl A Isopropyl A Kerosene Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Laggree Lubricating Lye Magnesium Magnesium Mercury Methale Methyl Ace Methyl Ace Methyl Alco	ocetate Leofol (Ropropanol) ther olvents olie (aq) etroleum Gas olis n Chloride (aq) n Hydroxide (aq) tate ylate shol (Methanol) yl Ketone oride	2 4 3 2 1 4 4 4 1 1-2 ³ 4 1 3 4 1 4 4 4 1 4 4 4 4 4 4 4 4 4 4 4	3 1 1 4 1 1 1 1 3 - 4 11-4 ⁴ 2 2 1 -	4 - 2 2 4 3 1 1 1 1 - 2 1-2 1 1 1 2 4 - - - - - 1 1 1 1 2 4 - - - - - - - - - - - - - - - - - -	1 1 1 	1 1 1 1
Isobutyl Alc Isooctane Isopropyl A Isopropyl A Isopropyl A Isopropyl A Kerose of Lander Lander Sc Lander Sc Magnesium Mercury Methyl Acc Methyl Alcc Methyl Chlo Methyl Ethy Methyl Ethy Methyl Ethy Methyl Ethy Methyl Ethy	cetate Jeobel (Isopropanol) the polyents p	2 4 3 2 1 4 4 4 1 1 1-2 ³ 4 1 1 3 4 4 4 4 1 4 4 4 4 4 4 4 4 4 4 4	3 1 1 4 1 1 1 1 3 - 4 1-4 ⁴ 2 2 1 - 2 1	4 - 2 2 4 3 1 - 1 1 1 - 2 1-2 1 1 1 2 4 - - - - - - - - - - - - -	1 	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Isobutyl Alcisooctane Isopropyl A Isopropy	cetate leofol (Ropropanol) ther plyents plyent	2 4 3 2 1 4 4 4 1 1-2 ³ 4 1 1 3 4 4 4 4 1 4 4 4 4 4 4 4 4 4 4 4	3 1 1 4 1 1 1 1 3 - 4 1-4 ⁴ 2 2 1 - 2 1 - 4 4 4 4 2 3	4 - 2 2 4 3 1 - 1 1 1 2 1-2 1 1 1 2 4 4 4 4 4 4 4 4 4 4 4 4 4	1 	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Isobutyl Alc Isooctane Isopropyl A Isopropyl A Isopropyl A Kerosene Lagrage Lagrage Lagrage Lagrage Lagrage Lagrage Lagrage Lagrage Lagrage Lubricating Lye Magnesium Mercury Methane Methyl Ace Methyl Ace Methyl Buty Methyl Chlc Methyl Chlc Methyl Isob Milk	cetate Jeobel (Isopropanol) the polyents p	2 4 3 2 1 4 4 4 4 2 1 1-2 ³ 4 1 4 4 1 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4	3 1 1 4 1 1 1 1 3 - 4 1-4 ⁴ 2 2 1 - 2 4 4 4 4 1 2 1	4 · 2 2 4 3 1 · 1 1 1 2 1-2 1 1 1 2 4 4 4 4 4 4 4 4 4 4 4 4 4	1 	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Isobutyl Alc Isooctane Isopropyl A Isopropyl A Isoprop	cetate leofol (Isopropanol) ther olvents olven	2 4 3 2 1 4 4 4 4 2 1 1-2 ³ 4 1 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	3 1 1 1 4 1 1 1 1 1 2 2 2 1 2 1 4 4 4 2 2 3 1 1 3 3 3 1 3 3 3 1 3 3 3 3 3 3 3	4 -2 2 2 4 3 1 -1 1 1 -2 1-2 1 1 1 2 4 -4 -4 -4 -4 -4 -4 -4 -4 -4	1 	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Isobutyl Alcisooctane Isopropyl A Isopropy	octate Cofie (Gopropanol) Ther olivents oli ate (aq) etroleum Gas olis n Chloride (aq) n Hydroxide (aq) tate ylate ohol (Methanol) yl Ketone oride Chloride yl Ketone outyl Ketone	2 4 3 2 1 4 4 4 4 2 1 1-2 ³ 4 1 4 4 1 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4	3 1 1 4 1 1 1 1 3 - 4 1-4 ⁴ 2 2 1 - 2 4 4 4 4 1 2 1	4 · 2 2 4 3 1 · 1 1 1 2 1-2 1 1 1 2 4 4 4 4 4 4 4 4 4 4 4 4 4	1 	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Isobutyl Alc Isooctane Isopropyl A Isopropyl A Isoprop	cetate leofol (Ropropanol) ther colvents col	2 4 3 2 1 4 4 4 4 2 1 1-2 ³ 4 1 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	3 1 1 4 1 1 1 1 1 3 - 4 1 1-4 ⁴ 2 2 1 - 2 1 - 4 1 1 3 3 3 4 4 4 2 2 1 1 2 1 2 1 3 3 3 4 4 4 4 4 4 2 2 3 3 3 4 4 4 4 4 4	4 - 2 2 4 3 1 - 1 1 1 2 1-2 1 1 1 2 4 - 1 1 1 2 4 4 4 4 4 4 4 4 4 4 4 4 4	1 1 - - - 1 1 1 1 1 - - 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Isobutyl Alcisooctane isopropyl A Isopropy	cetate Jeobel (Ropropanol) the polyents po	2 4 3 2 1 4 4 4 4 2 1 1-2 ³ 4 1 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	3 1 1 4 1 1 1 1 1 3 - 4 1-4 ⁴ 2 2 1 - 4 4 4 2 2	4	1 1 - - - - 1 1 1 1 - - 1 1 1 1 - - 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Isobutyl Alc Isooctane Isopropyl A Isopropyl Isopropyl A Isopropyl Isopropyl Isopropyl A Isopropyl Isopropyl	ocetate Jobel (Ropropanol) ther olivents oli	2 4 3 2 1 4 4 1 1-2 ³ 4 1 1 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	3 1 1 4 1 1 1 1 3 - 4 11-4 ⁴ 2 2 2 1 - 1 2 3 3 4 4 4 2 2 - 1 2 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	4	1 1 - - - - - 1 1 1 1 1 - - - - - 1 1 1 1 1 - 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Isobutyl Alcisooctane Isopropyl Alsopropyl Alsopropyl Alsopropyl Alsopropyl Alsopropyl Alsopropyl Everyl Alsopropyl Everyl Alsopropyl Everyl Everyl Everyl Everyl Everyl Everyl Alsopropyl Everyl Alsopropyl Everyl Alsopropyl Everyl Alsopropyl Everyl Alsopropyl Everyl Alsopropyl Everyl Every	coctate Jobel (Ropropanol) The Color of	2 4 3 2 1 4 4 4 4 2 1 1-2 ³ 4 1 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	3 1 1 4 1 1 1 1 1 3 4 4 1-4 ⁴ 2 2 2 1 - 4 4 4 2 2 2 -	4	1 - - - - - - - - 1 1 1 1 - - - - - 1 1 1 1 - - 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Isobutyl Alcisooctane isopropyl A Isopropy	cctate left of the proposition of the color	2 4 3 2 1 4 4 1 1-2 ³ 4 1 1 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	3 1 1 4 1 1 1 1 3 - 4 11-4 ⁴ 2 2 2 1 - 1 2 3 3 4 4 4 2 2 - 1 2 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	4	1 1 - - - - - 1 1 1 1 1 - - - - - 1 1 1 1 1 - 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Isobutyl Alcisooctane Isopropyl Alsopropyl Alsopropyl Alsopropyl Alsopropyl Alsopropyl Alsopropyl Everyl Alsopropyl Everyl Alsopropyl Everyl Everyl Everyl Everyl Everyl Everyl Alsopropyl Everyl Alsopropyl Everyl Alsopropyl Everyl Alsopropyl Everyl Alsopropyl Everyl Alsopropyl Everyl Every	cctate left of the proposition of the color	2 4 3 2 1 4 4 4 4 2 1 1-2 ³ 4 1 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	3 1 1 4 1 1 1 1 3 - 4 1-4 ⁴ 2 2 2 1 - 4 4 4 2 2 2 - 1 3 3 4 4 4 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	4 - 2 2 4 3 1 - - - - - - - - - - - - -	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	. 1 1 1 1
Isobutyl Alc Isooctane Isopropyl A Isoprop	coctate leobel (Ropropanol) the leobel (Ropropanol) the bluents bil site (aq) etroleum Gas c Oils n Chloride (aq) n Hydroxide (aq) tate leobel (Methanol) yl Ketone oride Chloride yl Ketone oride Chloride yl Ketone leow, 10W40 ighter Fluid) lee (Moth Repellent) s Dii 70% (Dilute) 10%	2 4 3 2 1 4 4 4 4 2 1 1-2 ³ 4 1 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	3 1 1 4 1 1 1 1 1 1 3 - 4 1-4 ⁴ 2 2 1 - 2 2 - 1 3 3 3 3 4 4 2 2 - 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	4	1	. 1 1 1 1
Isobutyl Alcisooctane Isopropyl A Isopropy	coctate leobel (Ropropanol) the leobel (Ropropanol) the bluents bil site (aq) etroleum Gas c Oils n Chloride (aq) n Hydroxide (aq) tate leobel (Methanol) yl Ketone oride Chloride yl Ketone oride Chloride yl Ketone leow, 10W40 ighter Fluid) lee (Moth Repellent) s Dii 70% (Dilute) 10%	2 4 3 2 1 4 4 4 1 4 2 1 1-2 ³ 4 1 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	3 1 1 4 1 1 1 1 1 1 2 2 2 1 2 2 1 4 4 2 2 2 1 1 2 2 1 1 3 3 4 4 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	4	1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Isobutyl Alc Isooctane Isopropyl A Isopropyl A Isopropyl A Isopropyl A Isopropyl A Kerose ne Lagouer Schall Lagouer Schall Lagouer Schall Lagouer Schall Lagouer Schall Magnesium Mercury Methane Methyl Ace Methyl Ace Methyl Ace Methyl Bub Methyl Ethy Methyl Isob Milk Mineral Oil Motor Oil 2 Naphthalen Natural Gai Neatsfoot (Nitric Acid Nitric Acid Nitric Acid Oleum Spir Olive Oil	coctate leofol (Ropropanol) ther colvents co	2 4 3 2 1 4 4 4 1 1 3 4 4 1 1 3 4 4 4 4 4 4 4 4	3 1 1 4 1 1 1 1 1 1 2 2 2 1 2 2 2 3 1 3 4 4 4 2 2 2 1 1 2 2 1 1 2 2 2 2 2 2 2 2	4 · 2 2 2 4 3 1 · 1 1 1 2 1-2 1 1 1 2 4 4 4 4 4 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Isobutyl Alc Isooctane Isopropyl A Isoprop	coctate Jobel (Ropropanol) tite polyents p	2 4 3 2 1 4 4 4 1 4 2 1 1-2 ³ 4 1 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	3 1 1 4 1 1 1 1 1 1 2 2 2 1 2 2 1 4 4 2 2 2 1 1 2 1 1 2 1 1 1 1	4	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	. 1 1 1 1
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Isobutyl Alc Isooctane Isopropyl A Isoprop	coctate Idobal (Ropropanol) ther Solvents Solid tete (aq) etroleum Gas Coils Chloride (aq) tate Value Value Chloride Chloride Value Chloride Chloride Value Chloride Chlori	2 4 3 2 1 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	3 1 1 4 1 1 1 1 1 1 2 2 2 1 2 2 1 2 2 1 2 2 1 1 4 4 2 1 1 1 2 1 1 1 1	4	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	. 1 1 1 1
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	PUR	PE	PVC	N	Kynar
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 (ag)	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	-	-	-
Red Oil (MIL-H-5606)	1	-	-		
RJ-1 (MIL-F-23338 B)	1	-	-	-	-
	1	-	-	-	-
RP-1 (MIL-F-25576 C)					
Salt Water	2	1	1	1	1
Sewage	1	-	-	-	1
Silicate Esters	1	- 1	- 1	-	- 1
Silicone Oils	1	1	1	-	1
Silver Nitrate	1	1	1	-	1
Skydrol 500	4	-	-	-	-
Skydrol 100	4	-	-	-	-
Soap Solutions Sodium Chloride (aq)	3	4	1	1	-
	1	1	1	1	-
Sŏdium 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
/inegar	2	1	1	1	i
Vinyl Chloride	4	4	4	-	1
Water	1	1	1	1	1
	2	1	1	1	1
Whiskey, Wines White Oil	1			-	-
Wood Oil	3	-	-	-	
	4	4	4	1	1
Kylene	4	4	4	1	
Zinc Acetate (aq)	2	1	1	1	1
Zinc Chloride (ag)		1	1	1	1

Rating Scale

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



Legend

- l Petroleum Base
- Synthetic Base = 1, Petroleum Base = 3
- 3 SAE 10, 20, 30, 40, 50 = 1, Petroeum = 2
- 4 Calcium Hydroxide and Potassium Hydroxide = 1, Sodium Hydroxide = 4
- Also see Propylene Glycol
- 6 Also see Ethylene Glycol



Copper Chloride (ag)

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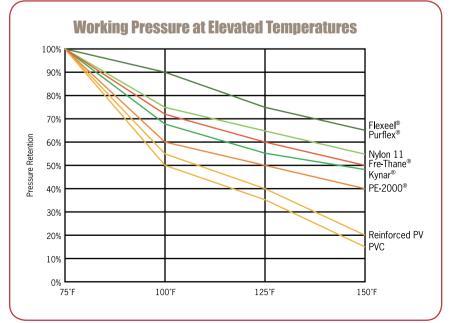
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Request Form

Everything in this catalog is available to ship within 24 hours of your order – many items will ship the same day.

Variations to the items in this catalog are easy to order and there is no minimum order quantity.

Call us: 888-373-9233 **Fax:** 888-325-7395

Mail: 1730 NE Miller Street

McMinnville, OR 97128 USA

Contact Information

State/Province	
Fax Number	

1. What are you Requesting?

○ Catalog	Quote	
Sample	Other:	

3. Variations

If your request includes a variation to a standard catalog item, please complete the STAMPED criteria and option sections below.

S.T.A.M.P.E.D.

2. Standard Catalog Items

Write the part number below, and please include the color code.

Quantity	Part Numbers (example: 1A-201-07)
	X
	19
	(2)

Please fill in a	as much	information	as you	can. Call	us or	reter	to our	Website
Item #1			$-\alpha$	//,		Item	ı #2	

Size	I.D.	•
	O.D	
Temperature:	Inside Tabe	
	Outside Tube	
A pplication	ئ	
M edia In Tube	e	
Pressure (Ma	ximum PSI)	
End (Fitting)	None	Barb
	Compression	O Push-In
	Flexcoil	O ther
D elivery	Immediate	1-2 Wks.

2+ Wks.

Quantity

Note

Item#2		
S ize	I.D	
	O.D	
Temperature:	Inside Tube	
	Outside Tube	
Application		
M edia In Tube	<u> </u>	
Pressure (Max	kimum PSI)	
End (Fitting)	None	Barb
	Compression	Push-In
	Flexcoil	Other

Immediate

2+ Wks.

1-2 Wks.

Other

Coil Variations

- Have Us Make a Coil to Your Specifications

Other

Coil Diameter plays a very significant role in retractability. The smaller and tighter the coil diameter, the snappier and more retractable the coil becomes. It is important to achieve a balance between retractability and usability.

Working Length of a coil is based on how far a coil can be stretched and used comfortably and is affected by the material used. Tail length is factored into the total working length.

Retracted Length is the length of the coiled section of the body of the coil. It does not include the length of tails.

Tails, or short pigtails, make it easier to use a coil. Our standard tail lengths are 8 and 16 inches, but coils with longer or shorter tails are available.

Please fill in as much information as you can. Call us or refer to our Website if you have any questions.

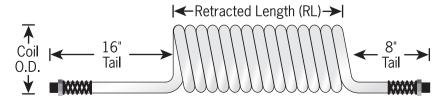
Delivery

Quantity

Note

1.) Part Number	<u>or</u> Tubing O.D	Tubing I.D			
2.) Working Length	Retracted Length _				
3.) What type of fitting?	Compression	Push-to-Connect None			
4.) Color	5.) What type of media?	Air/Gas Fluid			
5.) What is your application?					
6.) What type of media?					
7.) Temperature & pressure requirements					
8.) Quantity breaks					





TREASURE CHERISH PROTECT

Not just our green tubing is green.

t Freelin-Wade, reducing, recycling and reusing are ingrained into our culture.

In our offices, employees recycle virtually all paper and other office waste. In addition, we continue to make strides towards going "paperless" in this decade.

Manufacturing:

We recycle our scrap throughout our operation. This dramatically cuts our waste and reduces our footprint on the environment.

M. aroil.com

Freelin-Wade utilizes mechanical and electronic filtering systems to remove oil particulates from smoke generated during production operations before exhausting to the atmosphere.

Water Usage:

Freelin-Wade uses chilled filtered water to cool its extruded products. This water is recycled during the production process and is only drained at the end of each

day. No contaminants are passed to the water in the production process

Chemicals:

Freelin-Wade recycles/destroys its machine oils & hazardous waste chemicals through licensed companies in accordance with EPA Guidelines.

Die Cleaning:

Freelin-Wade utilizes a high-temperature die cleaning oven to reduce plastic film left on tooling to a fine dust. The high operating temperature of this oven reduces the amount of exhausted particulates with virtually zero emissions.

Contaminated Plastic Materials:

Freelin-Wade recycles waste plastic with licensed plastic recycling companies. Small amounts of contaminated materials are land filled under EPA Guidelines.

