

Variations

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

This 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



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:

Color Key			
01 Black	08 Yellow	26 Transparent Green	46 Neon Green
02 Brown	09 Orange	27 Transparent Blue	48 Neon Yellow
03 Silver	10 Natural	28 Transparent Yellow	49 Neon Orange
04 Gray	11 White	29 Transparent Orange	54 Sterling
05 Red	12 Purple	32 Transparent Purple	72 Sand
06 Green	14 Light Gray	37 Transparent Ice Blue	81 Off White
07 Blue	25 Transparent Red	45 Neon Pink	92 Surf

*Pantone® is a registered trademark of Pantone, Inc.

Cutting



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.

Fre-Thane® Polyurethane

Specifications

Temperature Range
-40° F to +165° F

Vacuum Rating
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

Resin Compliance
95A: NSF61
Meets UL94HB
90A: NSF61, FDA,
USPVI
85A: NSF61
Meets UL94HB
USPVI
70A: Meets UL94HB

Suggested Fittings
95A: Barb, Push-In, FX
90A: Barb
85A: Barb
70A: Barb



Polyurethane 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 a lightweight, stretchable fabric, called spandex.* Polyurethane is comprised of two basic materials, isocyanate and polyol.

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-base polymer is less expensive. However, it degrades when exposed to moisture. Because of this, we manufacture our Fre-Thane® polyurethane tubing using the Ether-base 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. It remains our flagship product today. It is available in 23 standard 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



Fre-Thane Polyurethane Colors

Any of our polyurethane tubing products listed on pages 9 and 10 are available in the colors shown below. If not shown as a standard item, please allow 3 weeks to fulfill your order.



Fre-Thane® 95A Polyurethane

Part Number & Color Code	Packaging Unit Size	OD	ID	Wall	Standard Colors	Working Pressure		lbs./100'	Bend Radius	Fitting
						75°F/25°C	150°F/65°C			
1J-157- ___ 50' Bag	250' Box	1/8"	.066"	.030"	01 04 05 06 07 08 10 11 12 14 25 26 27 28 29	255 PSI	100 PSI	.44	1/4"	B, PI
1L-157- ___ 500' Reel	1000' Reel									
1B-157- ___ 2500' Reel										
1A-157- ___ 100' Bag										
1J-156- ___ 500' Reel	1000' Reel	5/32"	3/32"	.031"	01 02 04 05 06 07 08 09 10 11 12 25 26 27 28 29 37	210 PSI	85 PSI	.62	3/8"	B, PI
1B-156- ___ 2500' Reel										
1A-156- ___ 100' Bag										
1J-107- ___ 1000' Reel	2000' Reel									
1B-107- ___ 2000' Reel		3/16"	.107"	.040"	07 08 10	220 PSI	90 PSI	.92	3/8"	B, PI
1A-107- ___ 100' Bag										
1J-169- ___ 500' Reel	1000' Reel									
1B-169- ___ 1000' Reel		1/4"	1/8"	.062"	01 04 05 06 07 08 09 10 11 25 26 27 28 29	265 PSI	105 PSI	1.83	1/2"	B, PI
1A-169- ___ 100' Bag										
1J-151- ___ 500' Reel	1000' Reel									
1B-151- ___ 1000' Reel		1/4"	.160"	.045"	01 04 05 06 07 08 09 10 11 12 25 26 27 28 46	175 PSI	70 PSI	1.44	1/2"	B, PI, FX
1A-151- ___ 100' Bag										
1J-152- ___ 250' Reel	500' Reel									
1B-152- ___ 500' Reel		3/8"	.245"	.065"	01 04 05 06 07 08 10 11 25 26 27 28 37 46	170 PSI	70 PSI	3.15	7/8"	B, PI, FX
1A-152- ___ 50' Bag										
1J-161- ___ 250' Reel										
1A-161- ___ 50' Bag	250' Reel	15/32"	5/16"	.079"	01 05 07 08 10 27	155 PSI	60 PSI	4.83	1-1/8"	B, PI
1J-166- ___ 250' Reel										
1A-166- ___ 50' Bag	250' Reel	1/2"	.320"	.090"	01 05 06 07 08 10 11 27	175 PSI	70 PSI	5.77	1-1/8"	B, PI
1J-163- ___ 200' Reel										
1A-163- ___ 50' Bag	200' Reel	9/16"	3/8"	.094"	01 07 08 10 27	155 PSI	60 PSI	6.85	1-3/8"	B, FX
1A-176- ___ 150' Reel										
1E-176- ___ Cut Length		3/4"	.467"	.142"	01 10	175 PSI	70 PSI	13.47	1-1/2"	B, FX

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.

Metric Sizes

Part Number & Color Code	Packaging Unit Size	OD mm	ID mm	Wall mm	Standard Colors	Working Pressure		lbs./100'	Bend Radius	Fitting
						75°F/25°C	150°F/65°C			
1J-171- ___ 100' Bag	500' Reel	3	1.8	.6	01 10	230 PSI	90 PSI	.35	6.4 mm	B, PI
1C-171- ___ 1000' Reel	2500' Reel									
1B-171- ___ 100' Bag										
1A-171- ___ 500' Reel										
1J-156- ___ 500' Reel	1000' Reel	4	2.4	.8	01 02 04 05 06 07 08 09 10 11 12 25 26 27 28 29 37	210 PSI	85 PSI	.62	9.5 mm	B, PI
1B-156- ___ 2500' Reel										
1A-156- ___ 100' Bag										
1J-158- ___ 500' Reel	1000' Reel									
1B-158- ___ 1000' Reel		6	4	1	01 04 05 06 07 08 09 10 11 25 26 27 28 37	160 PSI	65 PSI	1.21	12.7 mm	B, PI
1A-158- ___ 100' Bag										
1J-159- ___ 500' Reel										
1A-159- ___ 50' Bag	500' Reel	8	5	1.5	01 05 07 06 08 10 11 25 27 37	190 PSI	75 PSI	2.36	19 mm	B, PI
1J-160- ___ 500' Reel										
1A-160- ___ 50' Bag	500' Reel	10	6.5	1.75	01 05 06 07 08 10 27	170 PSI	70 PSI	3.51	22.2 mm	B, PI
1J-161- ___ 250' Reel										
1A-161- ___ 50' Bag	250' Reel	12	8	2	01 05 07 08 10 27	155 PSI	60 PSI	4.83	28.6 mm	B, PI
1J-162- ___ 200' Reel										
1A-162- ___ 50' Bag	200' Reel	16	11	2.5	01	150 PSI	60 PSI	4.85	76.2 mm	B, PI

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

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