

# Flexelene™ TUBING



Advanced Tubing Technology

Eldon James

# The Flexelene Advantage



Eldon James Flexelene™ tubing combines the excellent inert qualities of polyethylene with the flexibility found in 78A durometer PVC tubing. Flexelene™ is manufactured without the use of plasticizers, and has been designed for use with Eldon James "single barb" fittings to offer an outstanding economical alternative to rigid polyethylene tubing systems. Common applications for Flexelene™ include: pure water transfer, water conditioning, drinking water and bottling lines, brewery lines, wine transfer, beverage transfer and handling of deionized water.

Flexelene™ tubing is certified to **NSF Standards 51& 61** for contact with food, and use in beverage and water applications.

## Flexelene™

- Polyethylene based polymer – a standard class of material used in the water industry
- Pressure ratings similar to, or higher than, those of comparable polyurethane and PVC tubing
- Far exceeds the pressure capabilities of silicone
- Significantly more flexible than standard polyethylene tubing
- Typical working temperature range – 40°F to + 170°F (– 40°C to 76°C)
- Impact resistant at low temperatures • Maintains flexibility to – 40°C
- UV stable with excellent ozone resistance • Suitable for use with deionized water
- Contains no toxic plasticizers and is silicone free
- Abrasion and chemical resistant
- Available in clear or a variety of colors
- Economical



## Clear & Colored Tubing

- The N suffix in the Flexelene™ part number denotes Natural/Clear tubing
- To order colored tubing, replace the N with the appropriate color suffix from the chart below:  
ie. F X 2 - 4 X = 1/8" ID X 1/4" OD Black

\*All Flexelene™ colors are UV stabilized

Color Suffix	Tubing Color		+ Denotes standard colors 0 Denotes colors available based upon a quantity order										
	FX	FX Tubing ID	1-2 (1/16")	1.5-2.5 (3/32")	2-4 (1/8")	3-5 (3/16")	4-6 (1/4")	5-7 (5/16")	6-8 (3/8")	8-10 (1/2")	10-12 (5/8")	12-14/16 (3/4")	16-20 (1")
	CFX	CFX Tubing OD			2-4 (1/4")	3-5 (5/16")	4-6 (3/8")	5-7 (7/16")	6-8 (1/2")	8-10 (5/8")			
N □	Natural/Clear		+	+	+	+	+	+	+	+	+	+	+
W ■	White		+	0	+	0	+	0	0	0	0	0	0
B ■	Blue		+	0	+	+	+	0	+	0	0	0	0
X ■	Black		+	0	+	+	+	0	+	0	0	0	0
R ■	Red		+	0	+	+	+	0	+	0	0	0	0
O ■	Orange		+	0	+	0	+	0	0	0	0	0	0
V ■	Violet		+	0	+	0	+	0	0	0	0	0	0
G ■	Green		+	0	+	0	+	0	0	0	0	0	0
Y ■	Yellow		+	0	+	0	+	0	0	0	0	0	0

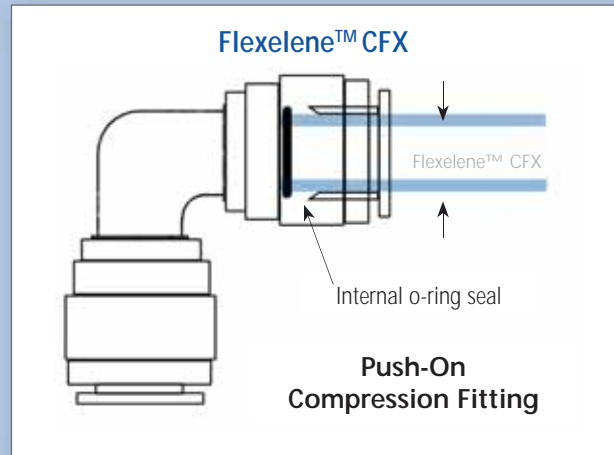
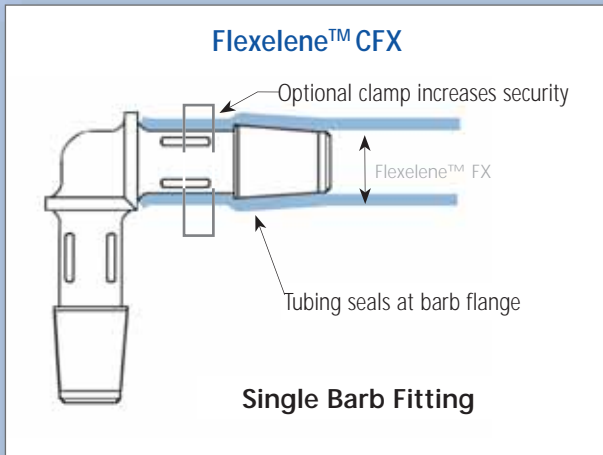


**Flexelene™ FX:**

Tubing is designed for use with barbed fittings and is compatible with most standard barb sizes. The inside diameter of the tubing is sized so that Eldon James fittings fit easily into the tubing. FX tubing and FXAG (anti-microbially protected) tubing are recommended for use with barbed fittings only.

**Flexelene™ CFX:**

Tubing is designed for use with compression or push-in style fittings. CFX and CFXAG (antimicrobially protected) tubing is sized so that the outside dimension (OD) of the tubing is compatible with push-on fittings. This type of fitting seals with an O-Ring against the tubing's outer wall. Eldon James single barb fittings can be used with Flexelene™ CFX tubing; however, glycerine, water, soap, alcohol or some other type of lubricant may be required to facilitate insertion.



**System Design Using Flexelene™ CFX and Push-On Compression Fittings**

Flexelene™ CFX & CFXAG tubing offer these advantages over rigid tubing when used with push-on fittings:

1. The tubing's inherent flexibility can alleviate lateral stress, a primary cause of leaks in push-on connections.
2. Flexible tubing dampens vibration and shut-off water hammer in a system.
3. Design of a system can incorporate both push-on and barbed fittings when Flexelene™ CFX is used.
4. Because it bends, using Flexelene™ tubing can reduce the number of fittings required for most installations.





# Flexelene™ FX Tubing



Part Number	ID	OD	Working PSI @20°C	Burst PSI @20°C	Wall Thickness	Bend Radius in.
FX 1-2N	1/16"	1/8"	110	420	1/32"	5/32"
FX 1.5-2.5N	3/32"	5/32"	86	260	1/32"	3/16"
FX 2-4N	1/8"	1/4"	150	450	1/16"	1/4"
FX 3-5N	3/16"	5/16"	96	320	1/16"	1/2"
FX 4-6N	1/4"	3/8"	73	220	1/16"	1"
FX 5-7N	5/16"	7/16"	66	200	1/16"	1 1/2"
FX 6-8N	3/8"	1/2"	53	160	1/16"	1 3/4"
FX 8-10N	1/2"	5/8"	48	145	1/16"	2 1/2"
FX 8-12N	1/2"	3/4"	80	240	1/8"	1 1/2"
FX 10-12N	5/8"	3/4"	40	120	1/16"	4"
FX 12-14N	3/4"	7/8"	30	90	1/16"	8"
FX 12-16N	3/4"	1"	33	100	1/16"	TBD
FX 16-20N	1"	1 1/4"	45	135	1/8"	8"

**Burst pressures** are approximately 3 times the maximum working pressure. Higher temperatures will reduce the available working pressure. Results are based on tests at our facility under controlled conditions; therefore, Eldon James Corp. makes no warranty or claim as to the performance of Flexelene™ in a specific application. It is strongly recommended that application-specific testing be done, particularly in situations where pressures approach the listed working PSI.



# Flexelene™ CFX Tubing

*Compression & Push-in Fitting Compatible Tubing*



Part Number	OD	ID	Working PSI @20°C	Burst PSI @20°C	Wall Thickness	Bend Radius in.
CFX 2-4N	1/4"	.125"	150	450	1/16"	1/4"
CFX 3-5N	5/16"	.188"	96	320	1/16"	1/2"
CFX 4-6N	3/8"	.265"	73	220	1/16"	1"
CFX 5-7N	7/16"	.323"	66	200	1/16"	1 1/2"
CFX 6-8N	1/2"	.385"	53	160	1/16"	1 3/4"
CFX 8-10N	5/8"	.510"	48	145	1/16"	2 1/2"

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# Flexelene™ FX Colors



Part Number	ID	OD	Working PSI @20°C	Burst PSI @20°C	Wall Thickness	Bend Radius in.
FX 1-2 *	1/16"	1/8"	110	420	1/32"	5/32"
FX 1.5-2.5 *	3/32"	5/32"	86	260	1/32"	3/16"
FX 2-4 *	1/8"	1/4"	150	450	1/16"	1/4"
FX 3-5 *	3/16"	5/16"	96	320	1/16"	1/2"
FX 4-6 *	1/4"	3/8"	73	220	1/16"	1"
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**\*ADD Colors SUFFIX** to colored Flexelene™ part numbers:

- N Clear
- W White
- B Blue
- X Black
- R Red
- O Orange
- V Violet
- G Green
- Y Yellow

Please refer to availability options on page 44 and add color suffix to indicate the color of tubing you would like to order.

