ELDON JAMES

Flexelene™ FX and CFX are a translucent, polyolefin elastomer tubing and PVC alternative.

Flexelene™ FX and CFX are the same material formulation. The OD of the CFX tubing has been manufactured for use with Compression Style fittings that mate with the OD of the tubing. FX tubing was manufactured to optimize the fit with Eldon James barbed fittings where the ID of the tubing is the critical dimension. Flexelene FX and CFX tubing are animal derived component-free, extruded with no plasticizers, latex, or vinyl acetate. This tubing can be used in bioprocess, medical, beverage and general use applications.

The tubing can be thermally welded, and heat sealed. Flexelene FX and CFX tubing has a shore A of 86 and is suitable for use with deionized water.

Flexelene FX and CFX tubing is manufactured according to GMP and the Flexelene FX and CFX resin meets USP Class VI, ISO 661, ISO 10993-4 and 10993-5 requirements

Typical Material Physical Properties

Property	Value / Rating	ATSM Method
Durometer, (Hardness) Shore A	86	D2240
Color	Clear, Translucent Solid	N/A
Specific Gravity - (Cured 1:1 A&B)	.89	D792
Tensile Strength psi (Mpa)	(Break, 73 °F / 22.3 °C) 870 psi 6.00 kPa	D412
Elongation - %	(Break, 73 °F / 22.3 °C) 470%	D412

Certifications

- USP Class VI biocompatibility requirements
- Cytotoxicity Criteria
- CFR Title 21 Section 177.2600
- ISO 10993 (part 4 and 5)
- ISO 661 Compliant
- Animal Derived Component-free
- Can be cleanroom manufactured
- Fully Lot Traceable

Product Features:

- USP Class VI Biocompatibility
- Non-Animal Derived
- Ultra-Pure Medical Grade
- Material Certificate and Lot Traceability
- Ultra-low Extractables / Leachables
- ISO 10993-5 – Non-cytotoxic
- ISO 10993-4 – Non-hemolytic
- ISO 661 Compliant
- PVC-Free – No DEHP Additives
- Low Gas and Oxygen Permeability
- No Halogens or Phthalates
- Thermally Weldable
- Heat Sealable

Typical Applications:

- Pharmaceutical and biotech processing
- Single-use systems
- Sterile filling
- Laboratory use
- General use

Order Information

Cat. No.	Ref ID	Actual ID	Ref OD	Actual OD	Wall	Roll Length	Minimum Bend Radius	Max. working pressure* at 68°F (20°C) psi* (bar)
FX.5-1	1/32	0.031 ± 0.005	1/16	0.063 ± 0.005	1/64	100 ft.	0.06	141 psi (9.72 bar)
FX.5-1.5	1/32	0.031 ± 0.005	3/32	0.093 ± 0.005	1/32	100 ft.	0.06	177 psi (12.20bar)
FX.5-2	1/32	0.031 ± 0.005	1/8	0.125 ± 0.005	3/64	100 ft.	—	—
FX1-2	1/16	0.063 ± 0.005	1/8	0.125 ± 0.005	1/32	100 ft.	0.13	130 psi (8.96 bar)
FX1.5-2.5	3/32	0.094 ± 0.005	5/32	0.156 ± 0.005	1/32	100 ft.	0.25	105 psi (7.24 bar)
FX2-3	9/64	0.140 ± 0.005	13/64	0.202 ± 0.005	1/32	100 ft.	0.50	63 psi (4.34 bar)
FX2-4	1/8	0.125 ± 0.005	1/4	0.250 ± 0.005	1/16	100 ft.	0.31	127 psi (8.76 bar)
FX3-4	3/16	0.187 ± 0.005	1/4	0.250 ± 0.005	1/32	100 ft.	0.75	53 psi (3.66 bar)
FX3-5	3/16	0.187 ± 0.005	5/16	0.312 ± 0.005	1/16	100 ft.	0.56	101 psi (6.96 bar)
FX4-6	1/4	0.265 ± 0.005	3/8	0.390 ± 0.005	1/16	100 ft.	0.88	79 psi (5.45 bar)
FX5-7	5/16	0.323 ± 0.008	7/16	0.448 ± 0.008	1/16	100 ft.	1.13	64 psi (4.41 bar)
FX6-8	3/8	0.385 ± 0.008	1/2	0.510 ± 0.008	1/16	100 ft.	1.50	53 psi (3.66 bar)
FX8-10	1/2	0.510 ± .010	5/8	0.625 ± .010	1/16	100 ft.	2.00	45 psi (3.72 bar)
FX8-12	1/2	0.510 ± 0.010	3/4	0.760 ± 0.010	1/8	100 ft.	1.80	74 psi (5.10 bar)
FX10-14	5/8	0.635 ± 0.010	7/8	0.885 ± 0.010	1/8	100 ft.	2.00	69 psi (4.76 bar)
FX12-14	3/4	0.760 ± 0.010	7/8	0.885 ± 0.010	1/16	100 ft.	5.00	36 psi (2.48 bar)
FX12-16	3/4	0.760 ± 0.010	1	1.010 ± 0.010	1/8	100 ft.	4.00	57 psi (3.93 bar)
FX16-20	1	1.010 ± 0.020	1 1/4	1.260 ± 0.020	1/8	100 ft.	7.00	42 psi (2.90 bar)

Cat. No.	Ref ID	Actual ID	Ref OD	Actual OD	Wall	Roll Length	Minimum Bend Radius	Max. working pressure* at 68°F (20°C) psi* (bar)
CFX1-2	1/16	0.063 ± 0.005	1/8	0.125 ± 0.005	1/32	100 ft.	0.13	139 psi (9.58 bar)
CFX2-4	1/8	0.125 ± 0.005	1/4	0.250 ± 0.005	1/16	100 ft.	0.31	120 psi (8.27 bar)
CFX2-5	1/8	0.125 ± .005	5/16	0.312 ± .005	3/32	100 ft.	—	—
CFX3-4	3/16	0.187 ± 0.005	1/4	0.250 ± 0.005	1/32	100 ft.	0.88	56 psi (3.86 bar)
CFX3-5	3/16	0.187 ± 0.005	5/16	0.312 ± 0.005	1/16	100 ft.	0.50	103 psi (7.10 bar)
CFX4-6	1/4	0.265 ± 0.005	3/8	0.390 ± 0.005	1/16	100 ft.	1.00	67 psi (4.62 bar)
CFX5-7	5/16	0.323 ± 0.008	7/16	0.448 ± 0.008	1/16	100 ft.	1.00	63 psi (4.34 bar)
CFX6-8	3/8	0.385 ± 0.008	1/2	0.510 ± 0.008	1/16	100 ft.	1.50	52 psi (3.59 bar)
CFX8-10	1/2	0.510 ± .010	5/8	0.625 ± .010	1/16	100 ft.	—	—

**Working pressure is determined using a 4:1 safety factor of the maximum burst pressure per ASTM D1599*

Other Specifications

Property	Value / Rating
Gas Permeability	Low - 2260- Barrier 02 (CC/MIL/100), N2/ATM/Day)
Sterilization Methods	Can be gamma at 25 kGy ethylene oxide (EtO) or e-beam.
Temperature	Min: -40°C (-40°F)
	Max: 80°C (+176°F)
Vicat Softening Temperature	75.0° C (167° F)
Glass Transition Temperature	-33.0° C (-27.4° F)

Information provided by material vendor

Contact us at:
sales@eldonjames.com
970-667-2728

ELDON JAMES

WWW.ELDONJAMES.COM

certified WBENC WOMEN'S BUSINESS ENTERPRISE

MADE IN USA