

Tubing • Clamps

Antimicrobial Protected
Tubing & Fittings



Tubing & Clamps
Antimicrobial



Tubing • Clamps • Fittings Kits



Flexelene™ Peristaltic Pump Tubing • Flexelene™ 135C, 121C and Flexelene™ 66E are designed for use in peristaltic pump applications. These products are manufactured from a thermoplastic elastomer material that is very durable. Initial testing results with 135C tubing confirm that the peristaltic life cycle exceeds 500 hours.

Cleanroom Manufactured



Flexelene™ Antimicrobial Protected Tubing • Flexelene™ FXAG, CFXAG, MFXAG and SFXAG are extruded with an inner liner that releases silver ions to protect against colonization by pathogenic bacteria. Silver ions also inhibit the growth of biofilm forming molds, fungi, and algae.

Cleanroom Manufactured



Handy Clamps • An economical, easy method for securing tubing to fittings. Handy Clamps are made from a tough nylon material that can withstand temperatures to 135 °C. No specialized tools are necessary for securing or removing Handy Clamps.



Heat Forming • Eldon James offers heat formed coils, shaped tubing and fused multi-tube ribbons as secondary process options. Contact Customer Support for more information regarding heat forming capabilities.



Laser Etching & Colors • Cleanroom manufactured tubing is laser etched with size and material code information. Custom laser etching is optional and is subject to lead time and minimum run, quantity requirements. Flexelene™ CFX and FX tubing products are available in a variety of colors and sizes. Size information on colored tubing is printed, not laser etched. Non-printed or non-etched tubing is available as a custom run option.



Environmental Stewardship: Eldon James biomedical tubing meets European REACH and RoHS requirements and will not emit toxic chemicals if incinerated. No toxic plasticizers, DEHP or phthalates are used as additives in the manufacture of this tubing. In addition, the tubing is free from PVC, Bisphenol-A and animal derivative components.

Eldon James

Ph. 970.667.2728 • eldonjames.com • fax 970.667.3204

Flexelene™	Shore A	Temp. Range °C	Temp. Range °F	Cleanroom Production	Sterilize	Antimicrobial Protected	Welding	Heat Sealing	Regulatory
 135C	68	135 °C -50 °C	275 °F -58 °F	✓	Autoclave, EtO Gamma: <45 kGy		✓	✓	USP Class VI ISO 10993-4 ISO 10993-5
MFX	58	57 °C -57 °C	135 °F -70 °F	✓	EtO, E-beam Gamma: to 25 kGy		✓	✓	USP Class VI EC 2002/72/EC
MFXAG	58	57 °C -57 °C	135 °F -70 °F	✓	E-beam, EtO	✓	✓	✓	FDA Compliant Materials
SFX	≤73	52 °C -40 °C	125 °F -40 °F	✓	E-beam Gamma: to 25 kGy		✓	✓	USP Class VI
SFXAG	≤73	52 °C -40 °C	125 °F -40 °F	✓	E-beam	✓	✓	✓	
 66E	66	121 °C -50 °C	250 °F -58 °F	✓	Autoclave, EtO Gamma: <45 kGy		✓	✓	USP Class VI ISO 10993-4 ISO 10993-5
 95E	95	135 °C -50 °C	275 °F -58 °F	✓	Autoclave, EtO Gamma: <45 kGy		✓		USP Class VI ISO 10993-4 ISO 10993-5

** Stock cleanroom manufactured tubing is laser etched with tubing number and size. Customer specified etching is available, or tubing may be special ordered with no etching - minimum order quantities may apply for custom etching or no logo tubing.

Peristaltic Pump Tubing

Flexelene™	Shore Range	Autoclave °C	Cleanroom Production	Sterilize	Welding	Heat Sealing	Regulatory
 66E 135C 121C	54-68	121 °C 135 °C 121 °C	✓	Autoclave Gamma, EtO	✓	✓	USP Class VI ISO 10993-4 ISO 10993-5

** The above Flexelene™ tubing products are suitable for peristaltic pump applications and exhibit exceptional durability under those conditions. Please refer to pages 44-48 for additional specifications.

General Purpose • Pneumatics • Robotics • Fluid Handling

Flexelene™	Shore A	Temp. Range °C	Temp. Range °F	Cleanroom Production	Sterilize	Antimicrobial Protected	Welding	Heat Sealing	Regulatory
FX	86	76 °C -40 °C	170 °F -40 °F		E-beam Gamma: to 25 kGy				USP Class VI Raw Materials
FXAG	86	76 °C -40 °C	170 °F -40 °F	✓	E-beam	✓			FDA Compliant Materials
CFX	86	76 °C -40 °C	170 °F -40 °F		E-beam Gamma: to 25 kGy				USP Class VI Raw Materials
CFXAG	86	76 °C -40 °C	170 °F -40 °F	✓	E-beam	✓			FDA Compliant Materials

Flexelene™ tubing contains no phthalates or DEHP.



Polyurethane & Braid Reinforced Tubing- see pages: 56-57

Autoclavable Products

** **Disclaimer:** Operating temperature for tubing is pressure dependent. The ranges stated here are for reference. Please test the tubing based on your specific application before determining its suitability.

Cleanroom Manufactured

Biomedical Tubing

USP Class VI

No DEHP or Phthalate Plasticizers

No PVC



Flexelene™ 135C • A bioprocess and medical grade tubing that meets USP Class VI requirements as well as cytotoxicity, ISO 10993-5 and hemolysis, ISO 10993-4 requirements. The heat-sealable and thermally weldable TPE polymer is autoclavable to 135 °C and has the durability required for use in peristaltic pumps. Low gas permeability • withstands EtO sterilization and gamma sterilization to 45 kGy • Shore A 68. Page 44



Flexelene™ MFX • A medical grade tubing that meets USP Class VI requirements and is suitable for sterilization by E-beam, EtO and Gamma (tested to 25 kGy). MFX tubing is non-cytotoxic, non-allergenic and ultra-low in extractables • Very soft and pliable • Shore A 58. Temp. -66 °C to +57 °C. Page 48



NEW Flexelene™ 66E-95E • Available in a range of Shore A hardness blends from 66 to 95. 66E to 95E thermoplastic elastomer tubing is autoclavable, but temperature resistance decreases proportionally with lower Shore hardness. Because extractables and leachables are very low, it is suitable for use in neonatal medical applications. The blend variables offered with Flexelene™ E open a wide range of custom extrusion options. Pages 47-48



Flexelene™ SFX • An economical, flexible polyolefin, biomedical and pharmaceutical tubing featuring low extractables. Shore A is ≤ 73 . SFX is suitable for applications in thermal environments below +52 °C. (125 °F). It exhibits excellent heat-sealing properties and meets USP Class VI requirements. Page 51



Flexelene™ MFXAG • Standard MFX tubing with a co-extruded inner liner. The liner provides antimicrobial protection via a slow release of silver ions that inhibit the growth of microorganisms and the formation of biofilm. Controlling microbial colonization is considered a preliminary step for reducing risk associated with Hospital Acquired Infections (HAIs). Page 52



Environmental Stewardship: Above listed Eldon James biomedical tubing meets European REACH and RoHS requirements and will not emit toxic chemicals if incinerated. No toxic plasticizers, DEHP or phthalates are used as additives in the manufacture of this tubing. In addition, the tubing is free from PVC, Bisphenol-A and meets animal derivative guidelines.

Biomedical Tubing

Cleanroom Manufactured

Flexelene™ 135C
RoHS Compliant



Non-toxic Emissions
when incinerated

Flexelene 135C

Autoclavable - USP Class VI



Biomedical • Pharmaceutical • Bioprocess Tubing

- Ultra-low extractables / leachables
- ISO 10993-5 - non-cytotoxic
- ISO 10993-4 - non-hemolytic
- Gamma resistance to 45 kGy
- Withstands multiple autoclave cycles
- Low gas and oxygen permeability
- No DEHP additives

Tube Number	ID		OD Nominal		Wall	Standard Roll
FLXC .5-1.5	1/32"	.0312"	3/32"	.093"	1/32"	50 ft.
FLXC 1-2	1/16"	.0625"	1/8"	.125"	1/32"	50 ft.
FLXC 1.5-2.5	3/32"	.0937"	5/32"	.156"	1/32"	50 ft.
FLXC 2-3	1/8"	.125"	3/16"	.187"	1/32"	50 ft.
FLXC 2-4	1/8"	.125"	1/4"	.250"	1/16"	50 ft.
FLXC 3-4	3/16"	.187"	1/4"	.250"	1/32"	50 ft.
FLXC 3-5	3/16"	.187"	5/16"	.312"	1/16"	50 ft.
FLXC 4-6	1/4"	.265"	3/8"	.390"	1/16"	50 ft.
FLXC 4-8	1/4"	.265"	1/2"	.510"	1/8"	50 ft.
FLXC 5-7	5/16"	.323"	7/16"	.448"	1/16"	50 ft.
FLXC 6-8	3/8"	.385"	1/2"	.510"	1/16"	50 ft.
FLXC 6-10	3/8"	.385"	5/8"	.635"	1/8"	50 ft.
FLXC 8-10	1/2"	.510"	5/8"	.635"	1/16"	50 ft.
FLXC 8-12	1/2"	.510"	3/4"	.760"	1/8"	50 ft.
FLXC 10-14	5/8"	.635"	7/8"	.885"	1/8"	50 ft.
FLXC 12-16	3/4"	.760"	1"	1.010"	1/8"	50 ft.
FLXC 16-20	1"	1.010"	1 1/4"	1.260"	1/8"	50 ft.

Temp. Range: -50 °C to 135 °C (-58 °F to +275 °F) • Shore A 68 hardness

No halogens or phthalates

Brittle temp. -88 °F

Thermally weldable

Animal Derivative Free

Autoclave, gamma and EtO sterilization

Permeability 2260 - Barrier O₂ (CC/MIL/100 | N₂/ATM/Day)

Low protein binding

Non-pyrogenic material

Cleanroom Manufactured

Peristaltic Pump Durability
Exceeds 500 hours



135 °C

ISO 9001
Quality System

Biomedical Tubing

Cleanroom Manufactured

NEW

Flexelene 121C

Flexelene™ 121C
RoHS Compliant



Non-toxic Emissions
when incinerated

Autoclavable - USP Class VI



121 °C

Soft - Shore A 54 Tubing

Biomedical • Pharmaceutical • Bioprocess



- Ultra-low extractables / leachables
- ISO 10993-5 - non-cytotoxic
- ISO 10993-4 - non-hemolytic
- Gamma resistance to 45 kGy
- Autoclavable to 121 °C
- Low gas and oxygen permeability
- No DEHP additives

Tube Number	ID		OD Nominal		Wall	Standard Roll
SFLXC .5-1.5	1/32"	.0312"	3/32"	.093"	1/32"	50 ft.
SFLXC 1-2	1/16"	.0625"	1/8"	.125"	1/32"	50 ft.
SFLXC 1.5-2.5	3/32"	.0937"	5/32"	.156"	1/32"	50 ft.
SFLXC 2-3	1/8"	.125"	3/16"	.187"	1/32"	50 ft.
SFLXC 2-4	1/8"	.125"	1/4"	.250"	1/16"	50 ft.
SFLXC 3-4	3/16"	.187"	1/4"	.250"	1/32"	50 ft.
SFLXC 3-5	3/16"	.187"	5/16"	.312"	1/16"	50 ft.
SFLXC 4-6	1/4"	.265"	3/8"	.390"	1/16"	50 ft.
SFLXC 4-8	1/4"	.265"	1/2"	.510"	1/8"	50 ft.
SFLXC 5-7	5/16"	.323"	7/16"	.448"	1/16"	50 ft.
SFLXC 6-8	3/8"	.385"	1/2"	.510"	1/16"	50 ft.
SFLXC 6-10	3/8"	.385"	5/8"	.635"	1/8"	50 ft.
SFLXC 8-10	1/2"	.510"	5/8"	.635"	1/16"	50 ft.
SFLXC 8-12	1/2"	.510"	3/4"	.760"	1/8"	50 ft.
SFLXC 10-14	5/8"	.635"	7/8"	.885"	1/8"	50 ft.
SFLXC 12-16	3/4"	.760"	1"	1.010"	1/8"	50 ft.
SFLXC 16-20	1"	1.010"	1 1/4"	1.260"	1/8"	50 ft.

Temp. Range: -50 °C to 121 °C (-58 °F to +250 °F) • Shore A 54 hardness

No halogens or phthalates

Brittle temp. -88 °F

Thermally weldable

Animal Derivative Free

Autoclave, gamma and EtO sterilization

Peristaltic Pump Compatible

Low protein binding

Non-pyrogenic material

Cleanroom Manufactured

Peristaltic Pump Compatible

ISO 9001
Quality System

millimeter sizes available on request

Bioprocess Tubing

Cleanroom Manufactured

KFlex

RoHS Compliant



NEW



Low Extractables Bioprocess Tubing

Pharmaceutical • Bioprocess • Medical

A flexible tubing product, with a Kynar® flowpath

- Low extractables / leachables liner component
- Kynar liner meets USP Class VI requirements
- More flexible than tubing extruded from 100% Kynar
- Animal derivative free Kynar® liner

Tube Number	ID		OD Nominal		Wall	Standard Roll
KFLEX .5-1.5	1/32"	.0312"	3/32"	.093"	1/32"	50 ft.
KFLEX 1-2	1/16"	.0625"	1/8"	.125"	1/32"	50 ft.
KFLEX 1.5-2.5	3/32"	.0937"	5/32"	.156"	1/32"	50 ft.
KFLEX 2-3	1/8"	.125"	3/16"	.187"	1/32"	50 ft.
KFLEX 2-4	1/8"	.125"	1/4"	.250"	1/16"	50 ft.
KFLEX 170-4	11/64"	.170"	1/4"	.250"	13/32"	50 ft.
KFLEX 3-4	3/16"	.187"	1/4"	.250"	1/32"	50 ft.
KFLEX 3-5	3/16"	.187"	5/16"	.312"	1/16"	50 ft.
KFLEX 4-6	1/4"	.265"	3/8"	.390"	1/16"	50 ft.
KFLEX 5-7	5/16"	.323"	7/16"	.448"	1/16"	50 ft.
KFLEX 6-8	3/8"	.385"	1/2"	.510"	1/16"	50 ft.
KFLEX 8-10	1/2"	.510"	5/8"	.635"	1/16"	50 ft.
KFLEX 8-12	1/2"	.510"	3/4"	.760"	1/8"	50 ft.
KFLEX 10-14	5/8"	.635"	7/8"	.885"	1/8"	50 ft.
KFLEX 12-16	3/4"	.760"	1"	1.010"	1/8"	50 ft.
KFLEX 16-20	1"	1.010"	1 1/4"	1.260"	1/8"	50 ft.

- Low gas and oxygen permeability
- No DEHP additives
- Chemical resistant Kynar liner
- Sterilize using E-beam

High Temp. Range: 80 °C (176 °F) • Shore A 85 hardness

Cleanroom Manufactured

ISO 9001
Quality System

millimeter sizes available on request

Biomedical Tubing

Flexelene™ 66E

RoHS Compliant

Cleanroom Manufactured



Animal Derivative Free
Neonatal Applications

- Ultra-low extractables / leachables
- Meets ISO 10993-4 • ISO 10993-5
- Sterilization: E-beam, EtO, gamma to 45 kGy or autoclave (121 °C)
- Thermoplastic Elastomer no PVC or phthalates
- Latex & halogen free
- Low protein binding



Flexelene FLX66E

USP Class VI • Biomedical • Bioprocess



Tube Number	ID		OD Nominal		Wall	Roll Size
FLX66E .5-1.5	1/32"	.0312"	3/32"	.093"	1/32"	50 ft.
FLX66E 1-2	1/16"	.0625"	1/8"	.125"	1/32"	50 ft.
FLX66E 1.5-2.5	3/32"	.0937"	5/32"	.156"	1/32"	50 ft.
FLX66E 2-3	1/8"	.125"	3/16"	.187"	1/32"	50 ft.
FLX66E 2-4	1/8"	.125"	1/4"	.250"	1/16"	50 ft.
FLX66E 3-4	3/16"	.187"	1/4"	.250"	1/32"	50 ft.
FLX66E 3-5	3/16"	.187"	5/16"	.312"	1/16"	50 ft.
FLX66E 4-6	1/4"	.265"	3/8"	.390"	1/16"	50 ft.
FLX66E 5-7	5/16"	.323"	7/16"	.448"	1/16"	50 ft.
FLX66E 6-8	3/8"	.385"	1/2"	.510"	1/16"	50 ft.
FLX66E 8-10	1/2"	.510"	5/8"	.635"	1/16"	50 ft.
FLX66E 8-12	1/2"	.510"	3/4"	.760"	1/8"	50 ft.
FLX66E 10-14	5/8"	.635"	7/8"	.885"	1/8"	50 ft.
FLX66E 12-16	3/4"	.760"	1"	1.010"	1/8"	50 ft.
FLX66E 16-20	1"	1.010"	1 1/4"	1.260"	1/8"	50 ft.

Temp. Range: - 50 °C to +121 °C (-58 °F to + 250 °F) • Shore A 66 hardness

Flexelene™ 75E

RoHS Compliant

Cleanroom Manufactured



Animal Derivative Free
Neonatal Applications

- Ultra-low extractables / leachables
- Meets ISO 10993-4 • ISO 10993-5
- Sterilization: E-beam, EtO, gamma to 45 kGy or autoclave (121 °C)
- Thermoplastic Elastomer no PVC or phthalates
- Latex & halogen free
- Low protein binding



Flexelene FLX75E

USP Class VI • Biomedical • Bioprocess



121 °C

Tube Number	ID		OD Nominal		Wall	Roll Size
FLX75E .5-1.5	1/32"	.0312"	3/32"	.093"	1/32"	50 ft.
FLX75E 1-2	1/16"	.0625"	1/8"	.125"	1/32"	50 ft.
FLX75E 1.5-2.5	3/32"	.0937"	5/32"	.156"	1/32"	50 ft.
FLX75E 2-3	1/8"	.125"	3/16"	.187"	1/32"	50 ft.
FLX75E 2-4	1/8"	.125"	1/4"	.250"	1/16"	50 ft.
FLX75E 3-4	3/16"	.187"	1/4"	.250"	1/32"	50 ft.
FLX75E 3-5	3/16"	.187"	5/16"	.312"	1/16"	50 ft.
FLX75E 4-6	1/4"	.265"	3/8"	.390"	1/16"	50 ft.
FLX75E 5-7	5/16"	.323"	7/16"	.448"	1/16"	50 ft.
FLX75E 6-8	3/8"	.385"	1/2"	.510"	1/16"	50 ft.
FLX75E 8-10	1/2"	.510"	5/8"	.635"	1/16"	50 ft.
FLX75E 8-12	1/2"	.510"	3/4"	.760"	1/8"	50 ft.
FLX75E 10-14	5/8"	.635"	7/8"	.885"	1/8"	50 ft.
FLX75E 12-16	3/4"	.760"	1"	1.010"	1/8"	50 ft.
FLX75E 16-20	1"	1.010"	1 1/4"	1.260"	1/8"	50 ft.

Temp. Range: - 50 °C to +121 °C (-58 °F to + 250 °F) • Shore A 75 hardness

millimeter sizes available on request

Biomedical Tubing

Flexelene™ 84E

RoHS Compliant

Cleanroom Manufactured



Animal Derivative Free
Neonatal Applications

- Ultra-low extractables / leachables
- Meets ISO 10993-4 • ISO 10993-5
- Sterilization: E-beam, EtO, gamma to 45 kGy or autoclave (135 °C)
- Thermoplastic Elastomer no PVC or phthalates
- Latex & halogen free
- Low protein binding



135 °C

Flexelene FLX84E

USP Class VI • Biomedical • Bioprocess



Tube Number	ID		OD Nominal		Wall	Roll Size
FLX84E .5-1.5	1/32"	.0312"	3/32"	.093"	1/32"	50 ft.
FLX84E 1-2	1/16"	.0625"	1/8"	.125"	1/32"	50 ft.
FLX84E 1.5-2.5	3/32"	.0937"	5/32"	.156"	1/32"	50 ft.
FLX84E 2-3	1/8"	.125"	3/16"	.187"	1/32"	50 ft.
FLX84E 2-4	1/8"	.125"	1/4"	.250"	1/16"	50 ft.
FLX84E 3-4	3/16"	.187"	1/4"	.250"	1/32"	50 ft.
FLX84E 3-5	3/16"	.187"	5/16"	.312"	1/16"	50 ft.
FLX84E 4-6	1/4"	.265"	3/8"	.390"	1/16"	50 ft.
FLX84E 5-7	5/16"	.323"	7/16"	.448"	1/16"	50 ft.
FLX84E 6-8	3/8"	.385"	1/2"	.510"	1/16"	50 ft.
FLX84E 8-10	1/2"	.510"	5/8"	.635"	1/16"	50 ft.
FLX84E 8-12	1/2"	.510"	3/4"	.760"	1/8"	50 ft.
FLX84E 10-14	5/8"	.635"	7/8"	.885"	1/8"	50 ft.
FLX84E 12-16	3/4"	.760"	1"	1.010"	1/8"	50 ft.
FLX84E 16-20	1"	1.010"	1 1/4"	1.260"	1/8"	50 ft.

Temp. Range: - 50 °C to +135 °C (-58 °F to + 275 °F) • Shore A 84 hardness

Flexelene™ 95E

RoHS Compliant

Cleanroom Manufactured



Animal Derivative Free
Neonatal Applications

- Ultra-low extractables / leachables
- Meets ISO 10993-4 • ISO 10993-5
- Sterilization: E-beam, EtO, gamma to 45 kGy or autoclave (135 °C)
- Thermoplastic Elastomer no PVC or phthalates
- Latex & halogen free
- Low protein binding



Flexelene FLX95E

USP Class VI • Biomedical • Bioprocess



135 °C

Tube Number	ID		OD Nominal		Wall	Roll Size
FLX95E .5-1.5	1/32"	.0312"	3/32"	.093"	1/32"	50 ft.
FLX95E 1-2	1/16"	.0625"	1/8"	.125"	1/32"	50 ft.
FLX95E 1.5-2.5	3/32"	.0937"	5/32"	.156"	1/32"	50 ft.
FLX95E 2-3	1/8"	.125"	3/16"	.187"	1/32"	50 ft.
FLX95E 2-4	1/8"	.125"	1/4"	.250"	1/16"	50 ft.
FLX95E 3-4	3/16"	.187"	1/4"	.250"	1/32"	50 ft.
FLX95E 3-5	3/16"	.187"	5/16"	.312"	1/16"	50 ft.
FLX95E 4-6	1/4"	.265"	3/8"	.390"	1/16"	50 ft.
FLX95E 5-7	5/16"	.323"	7/16"	.448"	1/16"	50 ft.
FLX95E 6-8	3/8"	.385"	1/2"	.510"	1/16"	50 ft.
FLX95E 8-10	1/2"	.510"	5/8"	.635"	1/16"	50 ft.
FLX95E 8-12	1/2"	.510"	3/4"	.760"	1/8"	50 ft.
FLX95E 10-14	5/8"	.635"	7/8"	.885"	1/8"	50 ft.
FLX95E 12-16	3/4"	.760"	1"	1.010"	1/8"	50 ft.
FLX95E 16-20	1"	1.010"	1 1/4"	1.260"	1/8"	50 ft.

Temp. Range: - 50 °C to +135 °C (-58 °F to + 275 °F) • Shore A 95 hardness

millimeter sizes available on request

Flexelene™ MFX

RoHS Compliant

Cleanroom Manufactured

*Animal Derivative Free*

- Ultra-low extractables / leachables
- Non-cytotoxic
- Non-allergenic
- Heat-sealable
- No phthalate plasticizers, or DEHP additives
- Meets USP <87> USP <88> • USP <661>
- Latex free

**Flexelene MFX**

USP Class VI • Biomedical Tubing

E-beam, gamma and EtO sterilization

Tube Number	ID		OD Nominal		Wall	Roll Size
MFX .5-2	1/32"	.0312"	1/8"	.125"	3/64"	50 ft.
MFX 1-2	1/16"	.0625"	1/8"	.125"	1/32"	50 ft.
MFX 1.5-2.5	3/32"	.0937"	5/32"	.156"	1/32"	50 ft.
MFX 2-4	1/8"	.125"	1/4"	.250"	1/16"	50 ft.
MFX 3-4	3/16"	.187"	1/4"	.250"	1/32"	50 ft.
MFX 3-5	3/16"	.187"	5/16"	.312"	1/16"	50 ft.
MFX 4-6	1/4"	.265"	3/8"	.390"	1/16"	50 ft.
MFX 5-7	5/16"	.323"	7/16"	.448"	1/16"	50 ft.
MFX 6-8	3/8"	.385"	1/2"	.510"	1/16"	50 ft.
MFX 8-10	1/2"	.510"	5/8"	.635"	1/16"	50 ft.
MFX 8-12	1/2"	.510"	3/4"	.760"	1/8"	50 ft.
MFX 10-14	5/8"	.635"	7/8"	.885"	1/8"	50 ft.
MFX 12-16	3/4"	.760"	1"	1.010"	1/8"	50 ft.
MFX 16-20	1"	1.010"	1 1/4"	1.260"	1/8"	50 ft.

Temp. Range: -57 °C to +57 °C • Shore A 58 hardness

Gamma - tested to 25 kGy

Recyclable

Flexelene™ MFX73M

RoHS Compliant

Cleanroom Manufactured

*Animal Derivative Free*

- Ultra-low extractables / leachables
- Non-cytotoxic
- Non-allergenic
- Heat-sealable
- No phthalate plasticizers, or DEHP additives
- Meets USP <87>, USP <88> • USP <661>
- Latex free

**Flexelene MFX73M**

USP Class VI • Biomedical Tubing

E-beam, gamma and EtO sterilization

Tube Number	ID		OD Nominal		Wall	Roll Size
MFX73M .5-2	1/32"	.0312"	1/8"	.125"	3/64"	50 ft.
MFX73M 1-2	1/16"	.0625"	1/8"	.125"	1/32"	50 ft.
MFX73M 1.5-2.5	3/32"	.0937"	5/32"	.156"	1/32"	50 ft.
MFX73M 2-4	1/8"	.125"	1/4"	.250"	1/16"	50 ft.
MMFX73M 3-4	3/16"	.187"	1/4"	.250"	1/32"	50 ft.
MFX73M 3-5	3/16"	.187"	5/16"	.312"	1/16"	50 ft.
MFX73M 4-6	1/4"	.265"	3/8"	.390"	1/16"	50 ft.
MFX73M 5-7	5/16"	.323"	7/16"	.448"	1/16"	50 ft.
MFX73M 6-8	3/8"	.385"	1/2"	.510"	1/16"	50 ft.
MFX73M 8-10	1/2"	.510"	5/8"	.635"	1/16"	50 ft.
MFX73M 8-12	1/2"	.510"	3/4"	.760"	1/8"	50 ft.
MFX73M 10-14	5/8"	.635"	7/8"	.885"	1/8"	50 ft.
MFX73M 12-16	3/4"	.760"	1"	1.010"	1/8"	50 ft.
MFX73M 16-20	1"	1.010"	1 1/4"	1.260"	1/8"	50 ft.

Temp. Range: -57 °C to +57 °C • Shore A 73 hardness

Gamma - tested to 25 kGy

Recyclable

Additional specifications on page 55

millimeter sizes available on request

Flexelene™ MFX82M

RoHS Compliant

Cleanroom Manufactured



Animal Derivative Free

- Ultra-low extractables / leachables
- Non-cytotoxic
- Non-allergenic
- Heat-sealable
- No phthalate plasticizers, or DEHP additives
- Meets USP <87> USP <88> • USP <661>
- Latex free



Flexelene MFX82M

USP Class VI • Biomedical Tubing

E-beam, gamma and EtO sterilization

Tube Number	ID		OD Nominal		Wall	Roll Size
MFX82M .5-2	1/32"	.0312"	1/8"	.125"	3/64"	50 ft.
MFX82M 1-2	1/16"	.0625"	1/8"	.125"	1/32"	50 ft.
MFX82M 1.5-2.5	3/32"	.0937"	5/32"	.156"	1/32"	50 ft.
MFX82M 2-4	1/8"	.125"	1/4"	.250"	1/16"	50 ft.
MFX82M 3-4	3/16"	.187"	1/4"	.250"	1/32"	50 ft.
MFX82M 3-5	3/16"	.187"	5/16"	.312"	1/16"	50 ft.
MFX82M 4-6	1/4"	.265"	3/8"	.390"	1/16"	50 ft.
MFX82M 5-7	5/16"	.323"	7/16"	.448"	1/16"	50 ft.
MFX82M 6-8	3/8"	.385"	1/2"	.510"	1/16"	50 ft.
MFX82M 8-10	1/2"	.510"	5/8"	.635"	1/16"	50 ft.
MFX82M 8-12	1/2"	.510"	3/4"	.760"	1/8"	50 ft.
MFX82M 10-14	5/8"	.635"	7/8"	.885"	1/8"	50 ft.
MFX82M 12-16	3/4"	.760"	1"	1.010"	1/8"	50 ft.
MFX82M 16-20	1"	1.010"	1 1/4"	1.260"	1/8"	50 ft.

Temp. Range: -57 °C to +62 °C • Shore A 82 hardness

Recyclable

Gamma - tested to 25 kGy

Flexelene™ MFX92R

RoHS Compliant

Cleanroom Manufactured



Animal Derivative Free

- Ultra-low extractables / leachables
- Non-cytotoxic
- Non-allergenic
- Heat-sealable
- No phthalate plasticizers, or DEHP additives
- Meets USP <87> USP <88> • USP <661>
- Latex free



Flexelene MFX92R

USP Class VI • Biomedical Tubing

E-beam, gamma and EtO sterilization

Tube Number	ID		OD Nominal		Wall	Roll Size
MFX92R .5-2	1/32"	.0312"	1/8"	.125"	3/64"	50 ft.
MFX92R 1-2	1/16"	.0625"	1/8"	.125"	1/32"	50 ft.
MFX92R 1.5-2.5	3/32"	.0937"	5/32"	.156"	1/32"	50 ft.
MFX92R 2-4	1/8"	.125"	1/4"	.250"	1/16"	50 ft.
MFX92R 3-4	3/16"	.187"	1/4"	.250"	1/32"	50 ft.
MFX92R 3-5	3/16"	.187"	5/16"	.312"	1/16"	50 ft.
MFX92R 4-6	1/4"	.265"	3/8"	.390"	1/16"	50 ft.
MFX82M 5-7	5/16"	.323"	7/16"	.448"	1/16"	50 ft.
MFX92R 6-8	3/8"	.385"	1/2"	.510"	1/16"	50 ft.
MFX92R 8-10	1/2"	.510"	5/8"	.635"	1/16"	50 ft.
MFX92R 8-12	1/2"	.510"	3/4"	.760"	1/8"	50 ft.
MFX92R 10-14	5/8"	.635"	7/8"	.885"	1/8"	50 ft.
MFX92R 12-16	3/4"	.760"	1"	1.010"	1/8"	50 ft.
MFX92R 16-20	1"	1.010"	1 1/4"	1.260"	1/8"	50 ft.

Temp. Range: -57 °C to +62 °C • Shore A 92 hardness

Recyclable

Gamma - tested to 25 kGy

Additional specifications on page 55

millimeter sizes available on request

Biomedical Tubing

Cleanroom Manufactured

Flexelene™ SFX
RoHS Compliant



Flexelene SFX

USP Class VI Biomedical Tubing

ISO 9001

Quality System



- Transparent
- Heat-sealable
- Ultra-low extractables / leachables
- No phthalate plasticizers or DEHP additives
- Sterilize with E-beam or gamma to 25 kGy
- Latex free

Tube Number	ID		OD Nominal		Wall	Roll Size
SFX .5-1.5	1/32"	.0312"	3/32"	.093"	1/32"	100 ft.
SFX 1-2	1/16"	.0625"	1/8"	.125"	1/32"	100 ft.
SFX 1.5-2.5	3/32"	.0937"	5/32"	.156"	1/32"	100 ft.
SFX 2-3	1/8"	.125"	3/16"	.187"	1/32"	100 ft.
SFX 2-4	1/8"	.125"	1/4"	.250"	1/16"	100 ft.
SFX 3-4	3/16"	.187"	1/4"	.250"	1/32"	100 ft.
SFX 3-5	3/16"	.187"	5/16"	.312"	1/16"	100 ft.
SFX 4-6	1/4"	.265"	3/8"	.390"	1/16"	100 ft.
SFX 5-7	5/16"	.323"	7/16"	.448"	1/16"	100 ft.
SFX 6-8	3/8"	.385"	1/2"	.510"	1/16"	100 ft.
SFX 8-10	1/2"	.510"	5/8"	.635"	1/16"	100 ft.
SFX 8-12	1/2"	.510"	3/4"	.760"	1/8"	100 ft.
SFX 10-14	5/8"	.635"	7/8"	.885"	1/8"	100 ft.
SFX 12-16	3/4"	.760"	1"	1.010"	1/8"	100 ft.

Temp. Range: -40 °C to 52 °C (-40 °F to + 125 °F) • Shore A ≤ 73 hardness

Antimicrobial Protected Tubing

Cleanroom Manufactured

Flexelene™ SFXAG
RoHS Compliant

Flexelene SFXAG

Antimicrobial Protected Biomedical Tubing

ISO 9001

Quality System



- Transparent
- Heat-sealable
- No phthalate plasticizers or DEHP additives
- Sterilize with E-beam
- Inner wall antimicrobial protected
- Latex free

Tube Number	ID		OD Nominal		Wall	Roll Size
SFXAG .5-1.5	1/32"	.0312"	3/32"	.093"	1/32"	100 ft.
SFXAG 1-2	1/16"	.0625"	1/8"	.125"	1/32"	100 ft.
SFXAG 1.5-2.5	3/32"	.0937"	5/32"	.156"	1/32"	100 ft.
SFXAG 2-4	1/8"	.125"	1/4"	.250"	1/16"	100 ft.
SFXAG 170-4	11/64"	.170"	1/4"	.250"	3/75"	100 ft.
SFXAG 3-4	3/16"	.187"	1/4"	.250"	1/32"	100 ft.
SFXAG 3-5	3/16"	.187"	5/16"	.312"	1/16"	100 ft.
SFXAG 4-6	1/4"	.265"	3/8"	.390"	1/16"	100 ft.
SFXAG 5-7	5/16"	.323"	7/16"	.448"	1/16"	100 ft.
SFXAG 6-8	3/8"	.385"	1/2"	.510"	1/16"	100 ft.
SFXAG 8-10	1/2"	.510"	5/8"	.635"	1/16"	100 ft.
SFXAG 8-12	1/2"	.510"	3/4"	.760"	1/8"	100 ft.
SFXAG 10-14	5/8"	.635"	7/8"	.885"	1/8"	100 ft.
SFXAG 12-16	3/4"	.760"	1"	1.010"	1/8"	100 ft.

Temp. Range: -40 °C to 52 °C (-40 °F to 125 °F) • Shore A ≤ 73 hardness

Antimicrobial Protected Tubing

Cleanroom Manufactured

Flexelene™ MFXAG

RoHS Compliant



Animal Derivative Free

- Non-cytotoxic
- Non-allergenic
- No phthalate plasticizers, or DEHP additives
- Inner wall antimicrobial protected
- Sterilize with E-Beam or EtO
- Latex free

Flexelene MFXAG

Antimicrobial Protected Biomedical Tubing



Tube Number	ID		OD Nominal		Wall	Roll Size
MFXAG .5-2	1/32"	.0312"	1/8"	.125"	3/64"	50 ft.
MFXAG 1-2	1/16"	.0625"	1/8"	.125"	1/32"	50 ft.
MFXAG 1.5-2.5	3/32"	.0937"	5/32"	.156"	1/32"	50 ft.
MFXAG 2-4	1/8"	.125"	1/4"	.250"	1/16"	50 ft.
MFXAG 3-4	3/16"	.187"	1/4"	.250"	1/32"	50 ft.
MFXAG 3-5	3/16"	.187"	5/16"	.312"	1/16"	50 ft.
MFXAG 4-6	1/4"	.265"	3/8"	.390"	1/16"	50 ft.
MFXAG 5-7	5/16"	.323"	7/16"	.448"	1/16"	50 ft.
MFXAG 6-8	3/8"	.385"	1/2"	.510"	1/16"	50 ft.
MFXAG 8-10	1/2"	.510"	5/8"	.635"	1/16"	50 ft.
MFXAG 8-12	1/2"	.510"	3/4"	.760"	1/8"	50 ft.
MFXAG 10-14	5/8"	.635"	7/8"	.885"	1/8"	50 ft.
MFXAG 12-16	3/4"	.760"	1"	1.010"	1/8"	50 ft.

Temp. Range: -57 °C to 57 °C (-70 °F to +135 °F) • Shore A 58 hardness

Polyolefin Elastomer Tubing

Flexelene™ FX

RoHS Compliant



- UV stable
- Suitable for use with deionized water
- No phthalate plasticizers or DEHP additives
- Ultra-low extractables / leachables
- Sterilize with E-beam or gamma 25 kGy
- Non-cytotoxic - Non-hemolytic

ISO 9001

Quality System

Flexelene FX

USP Class VI Tubing

USP Class VI
ISO 10993-4
ISO 10993-5

Tube Number	ID	OD Nominal	Wall	Roll Size
FX .5-1.5 N	1/32"	3/32"	1/32"	100 ft.
FX 1-2 N	1/16"	1/8"	1/32"	100 ft.
FX 1.5-2.5 N	3/32"	5/32"	1/32"	100 ft.
FX 2-3 N	1/8"	3/16"	1/32"	100 ft.
FX 2-4 N	1/8"	1/4"	1/16"	100 ft.
FX 3-4 N	3/16"	1/4"	1/32"	100 ft.
FX 3-5 N	3/16"	5/16"	1/16"	100 ft.
FX 4-6 N	1/4"	3/8"	1/16"	100 ft.
FX 5-7 N	5/16"	7/16"	1/16"	100 ft.
FX 6-8 N	3/8"	1/2"	1/16"	100 ft.
FX 8-10 N	1/2"	5/8"	1/16"	100 ft.
FX 8-12 N	1/2"	3/4"	1/8"	100 ft.
FX 10-12 N	5/8"	3/4"	1/16"	100 ft.
FX 10-14 N	5/8"	7/8"	1/8"	100 ft.
FX 12-14 N	3/4"	7/8"	1/16"	100 ft.
FX 12-16 N	3/4"	1"	1/8"	100 ft.
FX 16-20 N	1"	1 1/4"	1/8"	100 ft.

Temp. Range: -40 °C to 76 °C (-40 °F to 170 °F) • Shore A 86 hardness

For Antimicrobial Protected Polyolefin Tubing - See FXAG Listing on Page 59

NEW**Thermoforming**

Formed, cut-to-length, tubing based upon customers' design specifications can reduce assembly time and fittings requirements. Thermoforming enables clean compact designs by allowing tighter bends that reduce space requirements.



Medical Device • Automation • Robotics

- Custom shapes based on your requirements
- Thermoforming process leaves no residues
- Ideal for circuit board mounted components
- Design easy-to-trace color-coded flowpaths
- Cut assembly time and cost

Flexelene™ FX, Flexelene™ CFX and TPU tubing formulations exhibit physical characteristics that are ideal for thermoforming. Thermoforming generally requires tubing in a higher durometer range to maintain fixed bend geometries. Other Flexelene™ formulations can also be used for thermoform designs - Please contact Customer Support for more information and design options.

Flexelene™ CFX

RoHS Compliant

OD Sizes - For Push-on Fittings**Flexelene CFX**

USP Class VI
ISO 10993-4
ISO 10993-5

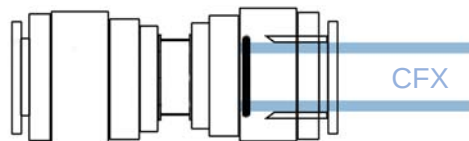


- UV stable
- Suitable for use with deionized water
- No phthalate plasticizers or DEHP additives
- Ultra-low extractables / leachables
- Sterilize with E-beam or gamma to 25 kGy

Tube Number	* OD *	ID Nominal	Wall	Roll Size
CFX 2.5MM-4MM	4 mm	2.5 mm	1/34"	100 ft.
CFX 4MM-6MM	6 mm	4 mm	1/25"	100 ft.
CFX 2-4 N	1/4"	.125"	1/16"	100 ft.
CFX 170-4 N	1/4"	.170"	1/25"	100 ft.
CFX 3-4 N	1/4"	.187"	1/32"	100 ft.
CFX 3-5 N	5/16"	.187"	1/16"	100 ft.
CFX 4-6 N	3/8"	.265"	1/16"	100 ft.
CFX 5-7 N	7/16"	.323"	1/16"	100 ft.
CFX 6-8 N	1/2"	.385"	1/16"	100 ft.
CFX 8-10 N	5/8"	.510"	1/16"	100 ft.

Temp. Range: -40 °C to 76 °C (-40 °F to 170 °F) • Shore A 86 hardness

- Non-cytotoxic
- Non-hemolytic



Push-on Style Fitting With CFX Tubing

Additional FX and CFX tubing specifications on page 55

Polyolefin Elastomer

Colored Tubing

Standard colored tubing sizes

Sizes not shown in the grid are available as special order items - Please call for minimum order requirements.

Flexelene™ FX - Colors

RoHS Compliant



- UV stable
- Suitable for use with deionized water
- No phthalate plasticizers or DEHP additives
- Low extractables / leachables

Additional Specifications - page 55

FX	CFX	red	blue	black	white	orange	violet	green	yellow
FX1-2		R	B	X	W	O	V	G	Y
FX2-3		R	B	X					Y
FX2-4	CFX2-4	R	B	X	W	O	V	G	Y
FX3-5	CFX3-5	R	B	X					
FX4-6	CFX 4-6	R	B	X	W	O	V	G	Y
FX6-8	CFX 6-8	R	B	X					

* add appropriate color code suffix when ordering R, X, W etc.

Tube Number	ID	OD Nominal	Wall	Standard Roll
FX .5-1.5 *	1/32"	3/32"	1/32"	100 ft.
FX 1-2 *	1/16"	1/8"	1/32"	100 ft.
FX 1.5-2.5 *	3/32"	5/32"	1/32"	100 ft.
FX 2-3 *	1/8"	3/16"	1/32"	100 ft.
FX 2-4 *	1/8"	1/4"	1/16"	100 ft.
FX 3-4 *	3/16"	1/4"	1/32"	100 ft.
FX 3-5 *	3/16"	5/16"	1/16"	100 ft.
FX 4-6 *	1/4"	3/8"	1/16"	100 ft.
FX 5-7 *	5/16"	7/16"	1/16"	100 ft.
FX 6-8 *	3/8"	1/2"	1/16"	100 ft.
FX 8-10 *	1/2"	5/8"	1/16"	100 ft.
FX 8-12 *	1/2"	3/4"	1/8"	100 ft.
FX 10-12 *	5/8"	3/4"	1/16"	100 ft.
FX 10-14 *	5/8"	7/8"	1/8"	100 ft.
FX 12-14 *	3/4"	7/8"	1/16"	100 ft.
FX 12-16 *	3/4"	1"	1/8"	100 ft.
FX 16-20 *	1"	1 1/4"	1/8"	100 ft.

Temp. Range: -40 °C to 76 °C (-40 °F to 170 °F) • Shore A 86 hardness

Flexelene™ CFX - Colors

RoHS Compliant



- UV stable
- Suitable for use with deionized water
- No phthalate plasticizers or DEHP additives
- Low extractables / leachables

OD Sizes - For Push-on Fittings

Tube Number	* OD *	ID Nominal	Wall	Roll Size
CFX 2.5MM-4MM *	4 mm	2.5 mm	1/34"	100 ft.
CFX 4MM-6MM *	6 mm	4 mm	1/25"	100 ft.
CFX 2-4 *	1/4"	.125"	1/16"	100 ft.
CFX 170-4 *	1/4"	.170"	1/25"	100 ft.
CFX 3-4 *	1/4"	.187"	1/32"	100 ft.
CFX 3-5 *	5/16"	.187"	1/16"	100 ft.
CFX 4-6 *	3/8"	.265"	1/16"	100 ft.
CFX 5-7 *	7/16"	.323"	1/16"	100 ft.
CFX 6-8 *	1/2"	.385"	1/16"	100 ft.
CFX 8-10 *	5/8"	.510"	1/16"	100 ft.

Temp. Range: -40 °C to 76 °C (-40 °F to 170 °F) • Shore A 86 hardness

Additional FX and CFX tubing specifications on page 55

Tubing Specifications - FX, CFX, FXAG, CFXAG

Part Numbers			ID		OD		Wall	Working PSI @ 70 °F	Burst PSI @ 70 °F	Bend Radius in.
FX		.5-1.5	1/32"	.0312"	.093"	3/32"	1/32"	160	500	1/16"
FX, FXAG		1-2	1/16"	.0625"	.125"	1/8"	1/32"	110	420	5/32"
FX, FXAG		1.5-2.5	3/32"	.0937"	.156"	5/32"	1/32"	86	260	3/16"
FX, FXAG		2-3	1/8"	.125"	.187"	3/16"	1/32"	73	220	1/4"
FX, FXAG	CFX, CFXAG	2-4	1/8"	.125"	.250"	1/4"	1/16"	150	450	1/4"
	CFX, CFXAG	170-4	11/65"	.170"	.250"	1/4"	1/25"	n/a	n/a	n/a
FX, FXAG	CFX, CFXAG	3-4	3/16"	.187"	.250"	1/4"	1/32"	n/a	n/a	n/a
FX, FXAG	CFX, CFXAG	3-5	3/16"	.187"	.312"	5/16"	1/16"	96	320	1/2"
FX, FXAG		4-6	1/4"	.265"	.390"	3/8"	1/16"	73	220	1"
	CFX, CFXAG	4-6	1/4"	.265"	.375"	3/8"	1/16"	73	220	1"
FX, FXAG		5-7	5/16"	.323"	.448"	7/16"	1/16"	66	200	1 1/2"
	CFX, CFXAG	5-7	5/16"	.323"	.438"	7/16"	1/16"	66	200	1 1/2"
FX, FXAG		6-8	3/8"	.385"	.510"	1/2"	1/16"	53	160	1 3/4"
	CFX, CFXAG	6-8	3/8"	.385"	.500"	1/2"	1/16"	53	160	1 3/4"
FX, FXAG		8-10	1/2"	.510"	.635"	5/8"	1/16"	48	145	2 1/2"
	CFX, CFXAG	8-10	1/2"	.510"	.625"	5/8"	1/16"	48	145	2 1/2"
FX, FXAG		8-12	1/2"	.510"	.760"	3/4"	1/8"	80	240	1 1/2"
FX, FXAG		10-12	5/8"	.635"	.760"	3/4"	1/16"	40	120	4"
FX, FXAG		10-14	5/8"	.635"	.885"	7/8"	1/8"	n/a	n/a	n/a
FX, FXAG		12-14	3/4"	.760"	.885"	7/8"	1/16"	30	90	8"
FX, FXAG		12-16	3/4"	.760"	1.010"	1"	1/8"	33	100	8"
FX, FXAG		16-20	1"	1.010"	1.260"	1 1/4"	1/8"	45	135	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 its Flexelene™ products in a specific application. It is strongly recommended that application-specific testing be done, particularly in situations where pressures approach the listed working PSI.

Tubing Specifications - MFX, MFXAG

Part Numbers			ID		OD		Wall Thickness	Working PSI @ 70 °F	Bend Radius in.
MFX	MFXAG	.5-2	1/32"	.0312"	.125"	1/8"	3/64"	≤30 psi	1/8"
MFX	MFXAG	1-2	1/16"	.0625"	.125"	1/8"	1/32"	≤30 psi	1/8"
MFX	MFXAG	1.5-2.5	3/32"	.0937"	.156"	5/32"	1/32"	≤30 psi	5/32"
MFX	MFXAG	2-4	1/8"	.125"	.250"	1/4"	1/16"	≤30 psi	3/16"
MFX	MFXAG	3-4	3/16"	.187"	.250"	1/4"	1/32"	≤30 psi	3/8"
MFX	MFXAG	3-5	3/16"	.187"	.312"	5/16"	1/16"	≤30 psi	1/2"
MFX	MFXAG	4-6	1/4"	.265"	.390"	3/8"	1/16"	≤30 psi	5/8"
MFX	MFXAG	5-7	5/16"	.323"	.448"	7/16"	1/16"	≤30 psi	1"
MFX	MFXAG	6-8	3/8"	.385"	.510"	1/2"	1/16"	≤30 psi	1 1/4"
MFX	MFXAG	8-10	1/2"	.510"	.635"	5/8"	1/16"	≤30 psi	n/a
MFX	MFXAG	8-12	1/2"	.510"	.760"	3/4"	1/8"	≤30 psi	n/a
MFX	MFXAG	10-14	5/8"	.635"	.885"	7/8"	1/8"	≤30 psi	n/a
MFX	MFXAG	12-16	3/4"	.760"	1.010"	1"	1/8"	≤30 psi	n/a
MFX	—	16-20	1"	1.010"	1.260"	1 1/4"	1/8"	≤30 psi	n/a

TPU

Thermoplastic Polyurethane

RoHS Compliant



Polyurethane Tubing

Transparent Ether Formula

- Hardness, Shore A 85
- UV stable - good for outdoor use
- Excellent resistance to weathering and fungus
- Resin material certified to NSF 61
- Max operating temperature 175 °F
- Resistance to, impact, abrasion and repeated flexing
- Exhibits excellent hydrolytic stability and low temperature properties

Tube Number	ID	OD	Wall Thickness	Standard Roll
TPU 1-2 N	1/16"	1/8"	1/32"	100 ft.
TPU 2-3 N	1/8"	3/16"	1/32"	100 ft.
TPU 2-4 N	1/8"	1/4"	1/16"	100 ft.
TPU 3-5 N	3/16"	5/16"	1/16"	100 ft.
TPU 4-6 N	1/4"	3/8"	1/16"	100 ft.
TPU 5-7 N	5/16"	7/16"	1/16"	100 ft.
TPU 6-8 N	3/8"	1/2"	1/16"	100 ft.
TPU 8-10 N	1/2"	5/8"	1/16"	100 ft.
TPU 8-12 N	1/2"	3/4"	1/8"	100 ft.
TPU 10-14 N	5/8"	7/8"	1/8"	100 ft.
TPU 12-16 N	3/4"	1"	1/8"	100 ft.
TPU 16-20 N	1"	1 1/4"	1/8"	100 ft.

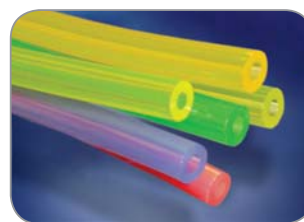
Operating Temp: to 80 °C (175 °F) • Shore A 85 hardness FDA 21 CFR 177.2600 - food contact

TPU Colors

RoHS Compliant

- Excellent material for thermoformed tubes
- Available in sizes listed above - 2000' minimum order
- Same material as transparent ether formula above

NEW



See Rotating Lock Luers - page 10 and CryatalVu™ Swivel Disconnects - page 14 for color-matched connectors.

Rose
Yellow
Orange
Lime
Berry
Violet



- Hardness, Shore A 85
- UV stable - good for outdoor use
- Max operating temperature 175 °F
- Max operating temperature 80 °C

Eldon James

Ph. 970.667.2728 • eldonjames.com • fax 970.667.3204

Eldon James Antimicrobial Protected Products

Silver Ion Protection



Inhibits Biofilm

Flexelene™ FXAG Tubing

Applications:

- Antimicrobial protected products inhibit colonization by pathogenic bacteria and the formation of biofilms. They can be useful in limiting risks associated with Hospital Acquired Infection (HAIs)
- Cooling systems for lasers that use miniature components and heat exchangers benefit from the use of antimicrobial protected products since biofilm accumulation in these sensitive devices reduces efficiency and can lead to clogging.
- Antimicrobial protected products are frequently used in water, food and beverage delivery systems. Retention of residual nutrients and back flush potential in these appliances make them particularly susceptible to bacterial colonization.
- Spray and mist systems that use small orifice nozzles risk clogging when biological films form within the system. Antimicrobial protected components offer an effective solution for inhibiting formation of these films.

Silver ions, in the quantities released by Eldon James antimicrobial products, have an extremely low toxicity. They are considered safe for the environment and there is no evidence that their use leads to production of resistant organisms.



Fittings are antimicrobial protected on all surfaces - tubing is protected by an inner co-extruded liner.

Antimicrobial protected tubing - pages 51-52 and 59

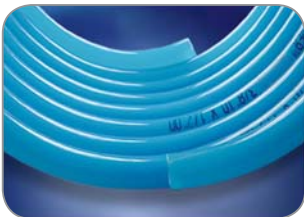


MFXAG Medical Tubing

Antimicrobial Protected Polyolefin Elastomer

Flexelene™ FXAG

RoHS Compliant



- Abrasion resistant
- No phthalate plasticizers or DEHP additives
- Inner wall antimicrobial protected
- Polyolefin elastomer

Additional Specifications - page 55

Flexelene FXAG

Tube Number	ID	OD Nominal	Wall	Roll Size
FXAG .5-1.5	1/32"	3/32"	1/32"	100 ft.
FX AG 1-2	1/16"	1/8"	1/32"	100 ft.
FXAG 1.5-2.5	3/32"	5/32"	1/32"	100 ft.
FXAG 2-3	1/8"	3/16"	1/32"	100 ft.
FXAG/CFXAG 2-4	1/8"	1/4"	1/16"	100 ft.
FXAG/CFXAG 3-4	3/16"	1/4"	1/32"	100 ft.
FXAG/CFXAG 3-5	3/16"	5/16"	1/16"	100 ft.
FXAG 4-6	1/4"	3/8"	1/16"	100 ft.
FXAG 5-7	5/16"	7/16"	1/16"	100 ft.
FXAG 6-8	3/8"	1/2"	1/16"	100 ft.
FXAG 8-10	1/2"	5/8"	1/16"	100 ft.
FXAG 8-12	1/2"	3/4"	1/8"	100 ft.
FXAG 10-12	5/8"	3/4"	1/16"	100 ft.
FXAG 10-14	5/8"	7/8"	1/8"	100 ft.
FXAG 12-14	3/4"	7/8"	1/16"	100 ft.
FXAG 12-16	3/4"	1"	1/8"	100 ft.

Temp. Range: -40 °C to 76 °C (-40 °F to +170 °F) • Shore A 86 hardness

*Eldon James developed its **AG tubing products** to offer protection against microbial colonization. Algae, molds, bacteria and fungi often form a biofilm layer on inner tubing walls, presenting health risks and causing undesirable tastes and odors. Portions of this biofilm may eventually break away, clogging filters or lodging in sensitive systems. Eldon James Flexelene AG Silver tubing releases natural silver ions, which are effective in preventing biofilm formation. Silver disrupts respiration and other metabolic functions of microbes and inhibits their growth.*

Flexelene™ CFXAG

RoHS Compliant

OD Sizes - For Push-on Fittings



- Abrasion resistant
- Inner wall antimicrobial protected
- Polyolefin elastomer

Additional Specifications - page 55

Flexelene CFXAG

Tube Number	* OD *	ID Nominal	Wall	Roll Size
CFXAG 2.5MM-4MM	4 mm	2.5 mm	1/34"	100 ft.
CFXAG 4MM-6MM	6 mm	4 mm	1/25"	100 ft.
CFXAG 2-4	1/4"	.125"	1/16"	100 ft.
CFXAG 170-4	1/4"	.170"	1/25"	100 ft.
CFXAG 3-4	1/4"	.187"	1/32"	100 ft.
CFXAG 3-5	5/16"	.187"	1/16"	100 ft.
CFXAG 4-6	3/8"	.265"	1/16"	100 ft.
CFXAG 5-7	7/16"	.323"	1/16"	100 ft.
CFXAG 6-8	1/2"	.385"	1/16"	100 ft.
CFXAG 8-10	5/8"	.510"	1/16"	100 ft.

Temp. Range: -40 °C to 76 °C (-40 °F to +170 °F) • Shore A 86 hardness

Antimicrobial Protected



Eldon James AG Fittings are silver ion protected to inhibit colonization by microbial pathogens. Silver's multiple modes of action minimize risk for development of resistant strains and make it an effective antimicrobial agent for a broad spectrum of bacteria.

Adapters

Antimicrobial Protected
RoHS Compliant



Animal Derivative Free

Animal Derivative Free

Thread - Barb	Part Number	AGNK	AGPP	AGNN	AGHDPE
1/8" NPT • 1/8"	A2-2	AGNK	AGPP	AGNN	AGHDPE
1/4" NPT • 1/4"	A4-4	AGNK	AGPP	AGNN	AGHDPE
3/8" NPT • 3/8"	A6-6	AGNK	AGPP	AGNN	AGHDPE
1/2" NPT • 1/2"	A8-8	AGNK	AGPP	AGNN	AGHDPE
3/4" NPT • 3/4"	A12-12	AGNK	AGPP	AGNN	AGHDPE
1" NPT • 1"	A16-16	AGNK	AGPP	AGNN	AGHDPE

Couplers

Antimicrobial Protected
RoHS Compliant



Animal Derivative Free

Animal Derivative Free

Size	Part Number	AGNK	AGPP	AGNN	AGHDPE
1/16"	C0-1	AGNK	AGPP	AGNN	AGHDPE
1/8"	C0-2	AGNK	AGPP	AGNN	AGHDPE
3/16"	C0-3	AGNK	AGPP	AGNN	AGHDPE
1/4"	C0-4	AGNK	AGPP	AGNN	AGHDPE
5/16"	C0-5	AGNK	AGPP	AGNN	AGHDPE
3/8"	C0-6	AGNK	AGPP	AGNN	AGHDPE
1/2"	C0-8	AGNK	AGPP	AGNN	AGHDPE
5/8"	C0-10	AGNK	AGPP	AGNN	AGHDPE
3/4"	C0-12	AGNK	AGPP	AGNN	AGHDPE
1"	C0-16	AGNK	AGPP	AGNN	AGHDPE

Additional antimicrobial (protected) AG fitting sizes are available - quantity order minimums may apply

Ag Kynar® AGNK	Ag Nylon AGNN
Ag Animal Derivative Free Polypropylene AGPP	Ag High Density Polyethylene AGHDPE

Couplers-Reduction

Antimicrobial Protected
RoHS Compliant

Antimicrobial Protected



Antimicrobial Protected

Size	Part Number	AGNK	AGPP	AGNN	AGHDPE
1/8" • 1/16"	C2-1	AGNK	AGPP	AGNN	AGHDPE
1/4" • 1/8"	C4-2	AGNK	AGPP	AGNN	AGHDPE
3/8" • 1/4"	C6-4	AGNK	AGPP	AGNN	AGHDPE
1/2" • 1/4"	C8-4	AGNK	AGPP	AGNN	AGHDPE
5/8" • 1/2"	C10-8	AGNK	AGPP	AGNN	AGHDPE
3/4" • 1/2"	C12-8	AGNK	AGPP	AGNN	AGHDPE
1" • 1/2"	C16-8	AGNK	AGPP	AGNN	AGHDPE

Additional antimicrobial (protected) AG fitting sizes are available - quantity order minimums may apply

Elbows

Antimicrobial Protected
RoHS Compliant



Size	Part Number	AGNK	AGPP	AGNN	AGHDPE
1/8"	L0-2	AGNK	AGPP	AGNN	AGHDPE
3/16"	L0-3	AGNK	AGPP	AGNN	AGHDPE
1/4"	L0-4	AGNK	AGPP	AGNN	AGHDPE
5/16"	L0-5	AGNK	AGPP	AGNN	AGHDPE
3/8"	L0-6	AGNK	AGPP	AGNN	AGHDPE
1/2"	L0-8	AGNK	AGPP	AGNN	AGHDPE
5/8"	L0-10	AGNK	AGPP	AGNN	AGHDPE
3/4"	L0-12	AGNK	AGPP	AGNN	AGHDPE
1"	L0-16	AGNK	AGPP	AGNN	AGHDPE

Elbows-Threaded - 1/8"-1" NPT

Antimicrobial Protected
RoHS Compliant



Thread - Barb	Part Number	AGNK	AGPP	AGNN	AGHDPE
1/8" NPT • 1/8"	L2-2	AGNK	AGPP	AGNN	AGHDPE
1/4" NPT • 1/4"	L4-4	AGNK	AGPP	AGNN	AGHDPE
3/8" NPT • 3/8"	L6-6	AGNK	AGPP	AGNN	AGHDPE
1/2" NPT • 1/2"	L8-8	AGNK	AGPP	AGNN	AGHDPE
3/4" NPT • 3/4"	L12-12	AGNK	AGPP	AGNN	AGHDPE
1" NPT • 1"	L16-16	AGNK	AGPP	AGNN	AGHDPE

Tees

Antimicrobial Protected
RoHS Compliant

Antimicrobial Protected



Animal Derivative Free

Animal Derivative Free

Size	Part Number	AGNK	AGPP	AGNN	AGHDPE
1/8"	T0-2	AGNK	AGPP	AGNN	AGHDPE
3/16"	T0-3	AGNK	AGPP	AGNN	AGHDPE
1/4"	T0-4	AGNK	AGPP	AGNN	AGHDPE
5/16"	T0-5	AGNK	AGPP	AGNN	AGHDPE
3/8"	T0-6	AGNK	AGPP	AGNN	AGHDPE
1/2"	T0-8	AGNK	AGPP	AGNN	AGHDPE
5/8"	T0-10	AGNK	AGPP	AGNN	AGHDPE
3/4"	T0-12	AGNK	AGPP	AGNN	AGHDPE
1"	T0-16	AGNK	AGPP	AGNN	AGHDPE

Antimicrobial Protected

Tees-Threaded

Antimicrobial Protected
1/8"-1" NPT RoHS Compliant



Animal Derivative Free

Animal Derivative Free

Thread - Barb	Part Number	AGNK	AGPP	AGNN	AGHDPE
1/8" NPT • 1/8"	T2-2	AGNK	AGPP	AGNN	AGHDPE
1/4" NPT • 1/4"	T4-4	AGNK	AGPP	AGNN	AGHDPE
3/8" NPT • 3/8"	T6-6	AGNK	AGPP	AGNN	AGHDPE
1/2" NPT • 1/2"	T8-8	AGNK	AGPP	AGNN	AGHDPE
3/4" NPT • 3/4"	T12-12	AGNK	AGPP	AGNN	AGHDPE
1" NPT • 1"	T16-16	AGNK	AGPP	AGNN	AGHDPE

Y-Connectors

Antimicrobial Protected
RoHS Compliant



Animal Derivative Free

Animal Derivative Free

Size	Part Number	AGNK	AGPP	AGNN	AGHDPE
1/8"	Y0-2	AGNK	AGPP	AGNN	AGHDPE
3/16"	Y0-3	AGNK	AGPP	AGNN	AGHDPE
1/4"	Y0-4	AGNK	AGPP	AGNN	AGHDPE
3/8"	Y0-6	AGNK	AGPP	AGNN	AGHDPE
1/2"	Y0-8	AGNK	AGPP	AGNN	AGHDPE

Ag Kynar® AGNK	Ag Nylon AGNN
Ag Animal Derivative Free Polypropylene AGPP	Ag High Density Polyethylene AGHDPE

Notes:

Eldon James

Handy Clamps

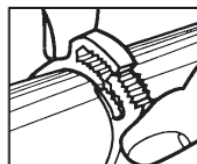
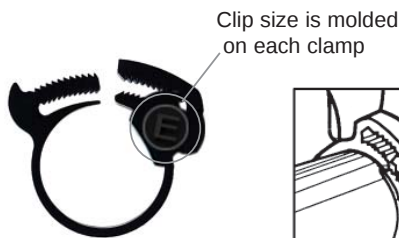


Tough 6/6 Nylon
Temperature Resistant to
150 °C

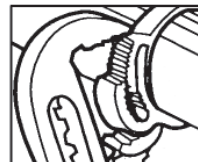


Part Number	Min. Diameter		Max. Diameter		3 Teeth Engaged	Sets of Teeth	Fits Flexelene™ FX and FXAG Tubing
	inches	mm	inches	mm			
HC-A	.220"	5.6	.268"	6.8	0.256"	8	FX 2-4*
HC-AA	.256"	6.5	.319"	8.1	0.311"	8	FX 3-5*
HC-B	.311"	7.9	.378"	9.6	0.362"	8	—
HC-BB	.362"	9.2	.425"	10.8	0.406"	9	FX 4-6*
HC-C	.402"	10.2	.484"	12.3	0.465"	9	FX 4-6*
HC-D	.472"	12.0	.528"	14.5	0.543"	9	FX 6-8*
HC-F	.591"	15.0	.701"	17.8	0.673"	11	FX 8-10*
HC-G	.665"	16.9	.783"	19.9	0.752"	11	FX 8-12*
HC-H	.713"	18.1	.843"	21.4	0.811"	11	FX 10-12*
HC-J	.799"	20.3	.933"	23.7	0.906"	11	FX 12-14*
HC-K	.874"	22.2	1.016"	25.8	0.980"	11	FX 12-16*
HC-N	1.134"	28.8	1.299"	33.0	1.268"	11	FX 16-20*
HC-P	1.260"	32.0	1.402"	35.6	1.370"	11	—
HC-Q	1.350"	34.3	1.524"	38.7	1.492"	12	—
HC-R	1.496"	38.0	1.654"	42.0	1.614"	12	—
HC-S	1.579"	40.1	1.776"	45.1	1.740"	12	—

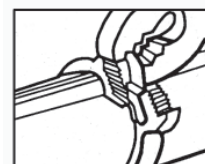
* Size tests were made using Eldon James "single barb fittings". The space behind a single barb allows for more compression of the tubing than is allowed by a multiple barb. With a multiple barb fitting, the clamp sits on top of the barb flanges and a larger clamp may be required - If in doubt about size, please ask for samples.



Set Teeth



Tighten



Remove

Size Selection Guideline:

With the hose in place on the fitting, select a Handy Clamp that provides a snug fit with one to three teeth engaged. When fully tightened this will produce a strong and reliable closure.

Sizes to 6" diameter - call for availability

Reusable - no special tools required to install

Stainless Steel Tubing Clamps



Oetiker Stepless Ear Clamps

- Radial Compression 360° - no steps or gaps on inner circumference
 - Ear design provides spring action during vibration and thermocycling conditions
 - Chromium-nickel stainless steel has a high strength-to-weight ratio
 - Excellent corrosion resistance in both aqueous and atmospheric environments
- Oetiker Stepless Ear Clamps are made of UNS S30400 or DIN 1.4301 stainless steel.



Clamps

Part Number	Clamping Range			Eldon James Flexelene™ Tubing Range - Size Test **			10 Bags (1000)	1 Bag (100)
	Band mm	mm closed • open	inches closed • open	Eldon James Tubing Number		Nominal Tubing OD		
16702487	5	5.3 - 6.5 mm	.209 - .256	—	—	—	•	•
16700985	5	7.0 - 8.7 mm	.276 - .343	—	—	—	•	•
16700988	5	8.8 - 10.5 mm	.347 - .413	MFX	4-6	3/8"	•	•
16700989	5	9.6 - 11.3 mm	.378 - .445	FX, FXAG	4-6	3/8"	•	•
16700992	7	9.8 - 12.3 mm	.386 - .484	FX, FXAG	5-7	7/16"	•	•
16700993	7	10.8 - 13.3 mm	.425 - .524	—	—	—	•	•
16700997	7	11.5 - 14.0 mm	.453 - .551	FX, FXAG, MFX	6-8	1/2"	•	•
16700999	7	12.0 - 14.5 mm	.472 - .571	—	—	—	•	•
16701005	7	13.2 - 15.7 mm	.520 - .618	—	—	—	•	•
16701009	7	14.5 - 17.0 mm	.571 - .669	—	—	—	•	•
16701015	7	15.3 - 18.5 mm	.602 - .728	FX, FXAG	8-10	5/8"	•	•
16701021	7	16.6 - 19.8 mm	.654 - .780	FX, FXAG	8-12	3/4"	•	•
16701029	7	17.8 - 21.0 mm	.701 - .827	FX	10-12	3/4"	•	•
16701058	7	20.9 - 24.1 mm	.823 - .949	—	—	—	•	•
16701072	7	22.4 - 25.6 mm	.882 - 1.008	FX	12-14	7/8"	•	•
16701087	7	23.9 - 27.1 mm	.941 - 1.067	—	—	—	•	•
16701103	7	25.4 - 28.6 mm	1.000 - 1.126	—	—	—	•	•
16701136	7	26.9 - 30.1 mm	1.059 - 1.185	—	—	—	•	•
16701203	7	29.9 - 33.1 mm	1.117 - 1.303	—	—	—	•	•
16701225	7	31.4 - 34.6 mm	1.236 - 1.362	FX	16-20	1 1/4"	•	•
16701245	7	32.9 - 36.1 mm	1.295 - 1.421	—	—	—	•	•
16701314	7	37.8 - 41.0 mm	1.488 - 1.614	—	—	—	•	•

SELECTING THE CORRECT SIZE: Select the nominal size nearest to, but always larger than the outside diameter of the material to be clamped. The outside diameter should be determined with connection fully assembled. Note: multiple barb fittings may require the use of a larger clamp size than single barb fittings - to consider the clamp closed - the ear width should be reduced by at least 40% when pinched.

Part Number
14100082



Standard Jaw Pliers

For closing all regular Oetiker Stepless Clamps

Part Number
14100083



Dual Purpose Side Jaw Pliers

Designed for working in tight areas with pliers held parallel to the hose - can also be used from the front like regular pliers

Stainless Steel Tubing Clamps

Oetiker



Worm Drive Clamps

Part Number	Clamping Range		5 Bags (250 pieces)	1 Bag (50 pieces)	< Bag (1-50 pieces)
	mm	inches			
17700167	10 - 16 mm	.39 - .623	•	•	•
17700050	12 - 20 mm	.472 - .787	Please call - quantities limited		
17700169	12 - 22 mm	.472 - .866	•	•	•
17700171	16 - 27 mm	.630 - 1.063	•	•	•
17700172	20 - 32 mm	.787 - 1.260	•	•	•
17700174	25 - 40 mm	.984 - 1.575	•	•	•
17700176	32 - 50 mm	1.260 - 1.969	•	•	•

Band size 9.0 mm x.60 mm - Please call for quotes on larger band sizes and clamp diameters.

1/4" Hex-Head Screw Clamps

Ideal



Part Number	Clamping Range		100 units	Each
	mm	inches		
62606	7.97 - 22.2 mm	5/16 - 7/8	•	•
62M08	12.7 - 25.4 mm	1/2 - 1	•	•
62M12	15.8 - 31.7 mm	5/8 - 1 1/4	•	•
62M16	15.8 - 38.1 mm	5/8 - 1 1/2	•	•

300 Series stainless steel band and housing. Zinc-plated, yellow chromate, carbon steel screw.

Tiny, tough, precision engineered • Seal with only 10 inch-pounds of screw torque • One-piece housing • No spot welds • Easy to install in confined areas



154 Medical Clamps - 2.5 mm - 10 mm



Oetiker
More Options



153 Mini Clamps - 2.9 mm - 11 mm



14100120 Autoclavable Mini Clamp
Pincer - for clamps up to 11.8 mm



Self-Tensioning Clamps
for vibrating equipment



1-Ear Clamps



2-Ear Clamps



14100078 Professional Tubing Cutter
w / replaceable Swiss steel blades