

# ELDON JAMES

Flexelene™ 121C is a durable thermoplastic elastomer (TPE) for use in pharmaceutical, bioprocess, and peristaltic pump applications.

Flexelene™ 121C has been developed to meet the critical demands of bioprocess, medical and laboratory applications. SFLXC 121C tubing is flexible, a good alternative to silicone and an excellent choice for use in peristaltic pump applications. Sterilized by Ethylene Oxide (EtO), Gamma resistance to 45 kGy, Autoclave to 121C, temperature range -50°C to 121°C (-58 °F to 250 °F), RoHS Compliant, Shore A 55 Hardness.

Manufactured for ultra-pure fluid transfer and meets a diverse range of pharmaceutical, medical and bioprocessing applications. Flexelene™ 121C meets the requirements of REACH, RoHS, USP 661, BPOG, CFR, USP VI, ISO 9001 and 13485 and other special test requirements.

## Chemical Resistance

Chemical Type	Chemical Compatibility
Acids, Dilute/Weak	Excellent
Acids, Strong/Concentrated	Good
Bases, Dilute/Weak	Excellent
Bases, Strong/Concentrated	Excellent
Salts	Excellent
High-purity Water	Excellent
Alcohol - Test for Suitability	Fair
Oil/Water Emulsion	Good
Organic Solvent - Water Soluble	Good

## Characteristics

Property	Value / Rating
Protein Binding	Low - will not absorb your product
Gas Permeability	Low - 2260- Barrier 02 (CC/MIL/100), N2/ATM/Day
Peristaltic Pump life	Exceeds 500hrs
Multiple Autoclave Cycles	Can be re-sterilized and reused

## Typical Applications:

- Pharmaceutical and biotech processing
- Peristaltic Pump Tubing
- Single-use systems
- Sterile filling
- Laboratory use

## Product Features:

- Superior Bio Compatibility
- Extremely Flexible with Excellent resilience and bend radius.
- Ultra-Pure Medical Grade
- Ultra-low Extractables / Leachables
- BPOG Tested
- USP 661 Compliant
- REACH and RoHS Compliant
- ISO 10993-5 – Non-cytotoxic
- ISO 10993-4 – Non-hemolytic
- PVC-Free – No DEHP Additives
- Low Gas and Oxygen Permeability
- No Halogens or Phthalates
- Low Protein Binding
- Non-pyrogenic Material
- Thermally Weldable
- Non-animal derived – BSE/TSE compliant
- Material Certificate and Lot Traceability

## 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)
SFLXC.5-1.5	1/32"	0.031 ± 0.005	3/32"	0.093 ± 0.005	1/32"	50 ft.	0.06	30 psi (0.80 bar)
SFLXC.5-2	1/32"	0.031 ± 0.005	1/8"	0.125 ± 0.005	3/64"	50 ft.	—	—
SFLXC1-2	1/16"	0.063 ± 0.005	1/8"	0.125 ± 0.005	1/32"	50 ft.	0.13	20 psi (1.41 bar)
SFLXC1.5-2.5	3/32"	0.094 ± 0.005	5/32"	0.156 ± 0.005	1/32"	50 ft.	0.19	15 psi (1.03 bar)
SFLXC2-3	1/8"	0.125 ± 0.005	3/16"	0.187 ± 0.005	1/32"	50 ft.	0.30	12 psi (0.79 bar)
SFLXC2-4	1/8"	0.125 ± 0.005	1/4"	0.250 ± 0.005	1/16"	50 ft.	0.20	19 psi (1.31 bar)
SFLXC3-4	3/16"	0.187 ± 0.005	1/4"	0.250 ± 0.005	1/32"	50 ft.	0.60	9 psi (0.61 bar)
SFLXC3-5	3/16"	0.187 ± 0.005	5/16"	0.312 ± 0.005	1/16"	50 ft.	0.31	14 psi (0.95 bar)
SFLXC3-6	3/16"	0.187 ± 0.005	3/8"	0.375 ± 0.005	3/32"	50 ft.	0.30	19 psi (1.31 bar)
SFLXC4-6	1/4"	0.265 ± 0.005	3/8"	0.390 ± 0.005	1/16"	50 ft.	0.80	11 psi (0.73 bar)
SFLXC4-7	1/4"	0.265 ± 0.005	1/2"	0.448 ± 0.008	3/32"	50 ft.	0.30	15 psi (1.03 bar)
SFLXC4-8	1/4"	0.265 ± 0.005	1/2"	0.510 ± 0.008	1/8"	50 ft.	0.30	17 psi (1.19 bar)
SFLXC5-7	5/16"	0.323 ± 0.008	7/16"	0.448 ± 0.008	1/16"	50 ft.	1.00	9 psi (0.62 bar)
SFLXC6-8	3/8"	0.385 ± 0.008	1/2"	0.510 ± 0.008	1/16"	50 ft.	2.30	8 psi (0.58 bar)
SFLXC6-10	3/8"	0.385 ± 0.008	5/8"	0.635 ± 0.008	1/8"	50 ft.	0.75	13 psi (0.89 bar)
SFLXC8-12	1/2"	0.510 ± 0.008	3/4"	0.760 ± 0.010	1/8"	50 ft.	1.30	10 psi (0.72 bar)
SFLXC10-14	5/8"	0.635 ± 0.010	7/8"	0.885 ± 0.010	1/8"	50 ft.	1.80	9 psi (0.60 bar)
SFLXC12-16	3/4"	0.760 ± 0.010	1"	1.010 ± 0.010	1/8"	50 ft.	2.30	8 psi (0.55 bar)
SFLXC12-20	3/4"	0.760 ± 0.010	1 1/4"	1.260 ± 0.020	1/4"	50 ft.	—	—
SFLXC16-20	1"	1.010 ± 0.020	1 1/4"	1.260 ± 0.020	1/8"	50 ft.	5.00	6 psi (0.42 bar)

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

## Typical Material Physical Properties

Property	Value / Rating	ATSM Method
Durometer, (Hardness) Shore A	55	D2240
Color	Clear, Translucent	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 MPa	D 412
Elongation - %	(Break, 73 °F / 22.3 °C) 470 %	D412
Temperature	Min: -50°C (-58°F)	—
	Max: 121°C (+250°F)	—

Information provided by material vendor

## Certifications

- USP Class VI biocompatibility requirements
- USP 661 Compliant
- Cytotoxicity Criteria
- CFR Title 21 Section 177.2600
- ISO 10993 (part 4 and 5)
- BPOG Tested
- REACH Compliant
- RoHS Compliant
- Cleanroom Manufactured
- Fully Lot Traceable
- Non-animal derived – BSE/TSE compliant



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