

SAINT-GOBAIN MEDICAL

TYGON® LCF

Tubing for Medical Device Manufacturers

Tygon® LCF tubing is a proprietary thermoplastic elastomeric (TPE) tubing developed by Saint-Gobain Life Sciences to meet the demanding requirements of the medical industry. Engineered for flexibility and durability, Tygon LCF features a uniquely low coefficient of friction (COF), making it ideal for applications requiring smooth, lubricious movement such as endoscopes and fiber optic cables. Unlike traditional fluoropolymers, Tygon LCF can withstand gamma sterilization without compromising its mechanical integrity.

AN ALTERNATIVE TO FLUOROPOLYMER MATERIAL

Fluoropolymers such as PTFE, FEP and PFA have been the materials of choice for medical tubing due to their low friction, chemical resistance and ability to withstand extreme temperature conditions. Tygon LCF is a cost-effective solution with low friction surface similar to PTFE and ePTFE, enabling smooth passage and minimal resistance. It maintains its mechanical and surface properties after gamma irradiation (24-40 kGy).

PATIENT SAFETY & COMFORT

Tygon LCF has been rigorously tested for biocompatibility in accordance with USP <88>, Plastic Class VI criteria. Whether used in tracheal insertion or urinary procedures, Tygon LCF tubing offers a soft, flexible profile that may contribute to improved patient comfort—particularly in minimally invasive techniques such as Natural Orifice Transluminal Endoscopic Surgery (N.O.T.E.S.), which access the peritoneal cavity through natural orifices.

Product recommendations are based on a combination of industry knowledge, material science expertise, and/or material testing data. Contact Saint-Gobain Medical for further tubing recommendation information.



TYGON®
Trusted Performance

FEATURES/BENEFITS

- Tygon LCF has met the criteria of USP<88> Class VI (2013, fluid path only)
- Cost effective low coefficient of friction polymer
- Lubricious
- Flexible

TYPICAL APPLICATIONS

- Device protection for enhanced maneuverability
- Endoscopes
- Fiber optic cable



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TYGON® LCF TUBING MANUFACTURED SIZES AND PRESSURES*

Part Number	I.D.		O.D.		Wall Thickness	
	(inches)	(mm)	(inches)	(mm)	(inches)	(mm)
TSS30-0125-031	0.063	1.59	0.125	3.18	0.031	0.79
TSS30-0188-063	0.063	1.59	0.188	4.76	0.0625	1.59
TSS30-0156-031	0.094	2.38	0.156	3.97	0.031	0.79
TSS30-0219-063	0.094	2.38	0.219	5.56	0.0625	1.59
TSS30-0188-032	0.125	3.18	0.188	4.76	0.0315	0.80
TSS30-0250-063	0.125	3.18	0.25	6.35	0.0625	1.59
TSS30-0219-032	0.156	3.97	0.219	5.56	0.0315	0.80
TSS30-0281-063	0.156	3.97	0.281	7.14	0.0625	1.59
TSS30-0250-031	0.188	4.76	0.25	6.35	0.031	0.79
TSS30-0313-063	0.188	4.76	0.313	7.94	0.0625	1.59
TSS30-0375-094	0.188	4.76	0.375	9.53	0.0935	2.37
TSS30-0438-125	0.188	4.76	0.438	11.11	0.125	3.18
TSS30-0313-032	0.25	6.35	0.313	7.94	0.0315	0.80
TSS30-0375-063	0.25	6.35	0.375	9.53	0.0625	1.59
TSS30-0438-094	0.25	6.35	0.438	11.11	0.094	2.39
TSS30-0500-125	0.25	6.35	0.5	12.7	0.125	3.18
TSS30-0438-063	0.313	7.94	0.438	11.11	0.0625	1.59
TSS30-0500-094	0.313	7.94	0.5	12.7	0.0935	2.37
TSS30-0563-125	0.313	7.94	0.563	14.29	0.125	3.18
TSS30-0500-063	0.375	9.53	0.5	12.7	0.0625	1.59
TSS30-0563-094	0.375	9.53	0.563	14.29	0.094	2.39
TSS30-0625-125	0.375	9.53	0.625	15.88	0.125	3.18

Custom sizes also available

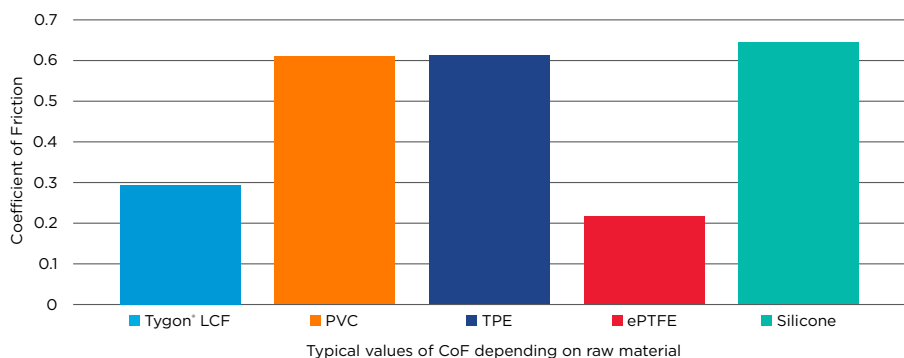
TYGON® LCF TUBING TYPICAL PHYSICAL PROPERTIES*

Property	ASTM Method	Value or Rating
Durometer Hardness, Shore A, 15 sec.	D2240	72
Tensile Strength, psi (MPa)	D412	2,710 (18.68)
Ultimate Elongation, %	D412	810
Tear Resistance, lbf/inch (kN/m)	D1004	270 (0.03)
Specific Gravity	D792	0.09
Compression Set Under Constant Deflection, % at 158°F (70°C) for 22 hrs.	D395	17
Maximum Recommended Operating Temp., °F (°C)	—	100 (38)
Color	Visual	White

*Unless otherwise noted, all tests were conducted at room temperature (73°F).

Values shown were determined on 0.075" thick extruded strips, 0.075" thick molded ASTM plaques or molded ASTM durometer buttons.

Tygon LCF Coefficient of Friction



IDEAL CHOICE FOR MEDICAL APPLICATIONS

Engineered for flexibility and durability, Tygon LCF features a low coefficient of friction (COF), making it ideal for applications requiring smooth, lubricious movement such as endoscopes and fiber optic cables.

NOTE: The information provided pertains only to product manufactured at the Saint-Gobain Mickleton, New Jersey facility. Saint-Gobain Performance Plastics Corporation's Life Science ("Saint-Gobain") products that are used as components in the manufacture of any Medical Devices (as defined by the FDA) are sold by Saint-Gobain only and exclusively to Medical Device manufacturers for use in the manufacture, assembly or distribution of their medical devices. Medical Device manufacturers, to whom Saint-Gobain sells components or for whom Saint-Gobain acts as a subcontractor for finished products, are solely responsible for determining whether their finished products are a medical device and complying with the appropriate certifications and registrations.

This document is intended to provide information about the product to enable you to consider whether generally the Product meets your application need and is not intended to provide product specification. This document should not be considered a Product warranty or guaranty. To the extent this document mentions any tests done by Saint-Gobain, such tests are done under controlled laboratory circumstances and hence other factors in your use and application may impact such values.



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