

Thermo Scientific

General Purpose Peristaltic Pump Tubing

Thermo Scientific general purpose peristaltic pump tubing is ideal for many applications. It provides good performance at an economical price. This tubing has been tested to operate in Thermo Scientific peristaltic pumps. We offer four formulations for a broad range of chemical compatibility.



For use with FH100

BioPharm Silicone Tubing (platinum-cured)

Features/Benefits

- Ultra-smooth inner surface minimizes particle entrapment
- Very low extractables, with documented biocompatibility for sensitive applications
- Ideal for lab, biotech, and pharmaceutical applications

PharMed® BPT Tubing

Features/Benefits

- Over 10,000 hours of tubing life
- Resists ozone and UV radiation
- Noncytotoxic and nonhemolytic
- Ideal for tissue and cell culture work

Tygon® Tubing

Features/Benefits

- Ideal for general transfer applications
- Economical
- Nontoxic, nonaging, and nonoxidizing

Norprene® Food Tubing

Features/Benefits

- Ideal for high-temperature food and beverage applications
- Meets FDA and NSF standards
- Up to 10,000 hours of tubing life
- Best choice for pressure/vacuum applications
- Resists heat, ozone, acids, and alkalies
- Heat sealable and bondable
- Nonaging, nonoxidizing-Performance pump heads.
- Bioreactor process lines
- Sterile filling
- Diagnostic test products

Pump tubing formulation	BioPharm Silicone Tubing (platinum-cured)	PharMed BPT	Norprene Food (A 60 F)	Tygon Lab (R-3603)
Series number	72-300-XXX	72-303-XXX	72-305-XXX	72-310-XXX
Advantages	Ultra-smooth inner surface minimizes particle entrapment. Lower absorption; excellent biocompatibility; no leachable additive, DOP, or plasticizers. Very low extractables. Odorless and nontoxic, fungus-resistant. No taste imparted to transported fluids. Weather, ozone, corona, and radiation resistant.	Great for tissue and cell work—nontoxic and nonhemolytic. Long service life minimizes risk of fluid exposure; reduces tubing costs and pump downtime. Opaque to UV and visible light to protect light-sensitive fluids. Low gas permeability. High-pressure (100 psi) version available.	Similar to Norprene (06404) but with FDA approval. Excellent for food/dairy applications. Longest life, good flow consistency. Heat and ozone resistant. Good resistance to acids/alkalies. Heat sealable, nonaging, and nonoxidizing. High dielectric constant.	Inexpensive tubing for general laboratory applications. Clear for easy flow monitoring. Handles virtually all inorganic chemicals. Nonaging, nonoxidizing. Low gas permeability. Good for viscous fluids. High dielectric constant.
Limitations	Do not use with concentrated solvents, oils, acids. Relatively high gas permeability.	Potential leaching of USP mineral oil or blend material.	Potential leaching of USP mineral oil or blend material	Limited pumping life. Potential leaching of plasticizer
Application suitability:				
Acids	Not recommended	Good	Good	Good
Alkalies	Not recommended	Good	Good	Good
Organic solvents	Not recommended	Not recommended	Not recommended	Not recommended
Pressure	Excellent	Good	Excellent	Good
Vacuum	Good	Good	Excellent	Good
Viscous fluids	Good	Excellent	Excellent	Excellent
Sterile fluids	Excellent	Excellent	Good	Poor
Physical characteristics and composition	Thermal set rubber. Siloxane polymers and amorphous silica. Excellent compression strength. Soft material; flexible. Translucent, clear to light amber.	Thermoplastic elastomer. Polypropylene-based material with USP mineral oil. Excellent tensile strength. Firm (stiff) material. Opaque, beige.	Thermoplastic elastomer. Polypropylene-based material with USP mineral oil. Excellent tensile strength. Firm (stiff) material. Opaque, beige.	Thermoplastic. PVC-based material with plasticizer. Firm (stiff) material. Transparent, clear.
Temperature Range	—60 to 232°C (—75 to 450°F)	—51 to 132°C (—60 to 270°F)	—59 to 135°C (—60 to 270°F)	—50 to 74°C (—58 to 165°F)
Meets classifications	USP Class VI FDA 21 CFR 177.2600 Exceeds 3A sanitary standards European Pharmacopoeia (EP)	USP Class VI FDA 21 CFR 177.2600 NSF-listed (Standard 51). European Pharmacopoeia (EP)	FDA 21 CFR 177.2600 NSF-listed (Standard 51)	FDA 21 CFR 175.300
Gas permeability cc x mm (cm2 x sec x cm Hg) x 10⁻¹⁰	CO ₂ : 25,147 H ₂ : — O ₂ : 4715 N ₂ : 2284	CO ₂ : 1200 H ₂ : — O ₂ : 200 N ₂ : 80	CO ₂ : 1200 H ₂ : — O ₂ : 200 N ₂ : 80	CO ₂ : 360 H ₂ : 97 O ₂ : 80 N ₂ : 40
Cleaning/sterilization	Sterilize by ETO, autoclave, or gamma radiation up to 2.5 Mrad. To autoclave: coil loosely in nonlinting cloth or paper; autoclave at 121°C (250°F), 1 bar (15 psi) for 30 minutes.	Sterilize by ETO, autoclave, or gamma radiation up to 2.5 Mrad. Repeated autoclaving will not affect overall life.	Sterilize by autoclave. Repeated autoclaving will not affect overall life.	Sterilize with ETO or autoclave. To autoclave: Coil tubing loosely in nonlinting cloth or paper, autoclave at 121°C (250°F), 1 kg/cm ² (15 psi) for 30 minutes (tubing will appear milky); air dry at max 66°C (150°F) for 2 to 2½ hours until clear.

		FH100 Flow Rates						FH100X Flow Rates			
Flowrate by Tubing Size	Tubing Size	13	14	16	25	17	18	15	24	35	36
	ml/min	0.50 – 40	2.0 – 150	6.5 – 550	16 – 1200	24 – 2000	368 – 3000	14 to 1200	24 to 2000	36 to 3000	48 to 4000
	Tubing I.D.	1/32 0.08 mm	1/16 1.6 mm	1/8 3.2 mm	3/16 4.8 mm	1/4 6.4 mm	5/16 8.0 mm	3/16 4.8 mm	1/4 6.4 mm	5/16 8.0 mm	3/8 9.5 mm

		1.6 mm Wall - Use in FH100						2.4 mm wall- Use in FH100X			
General Purpose	Formulation	Size 13	Size 14	Size 16	Size 25	Size 17	Size 18	Size 15	Size 24	Size 35	Size36
	BioPharm Silicone	X	72-300-014	72-300-016	72-300-025	72-300-017	72-300-018	72-300-015	72-300-024	72-300-035	72-300-036
	Pharmed BPT	72-303-013	72-303-014	72-303-016	72-303-025	72-303-017	72-303-018	X	X	X	X
	Norprene Food	X	72-305-014	72-305-016	72-305-025	72-305-017	72-305-018	X	X	X	X
	Tygon	X	72-310-014	72-310-016	72-310-025	72-310-017	72-310-018	X	72-310-024	72-310-035	72-310-036

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Norprene, Pharmed, Tygon - Reg TM of Saint-Gobain Performance Plastics Corp.

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