

Masterflex® Chem-Durance® Bio Pump Tubing

Masterflex® Chem-Durance® Bio tubing offers broad chemical compatibility, reducing the need to stock multiple formulations. The plasticizer-free, smooth-bore liner is hydrophobic and resists the absorption and adsorption of aqueous fluids, minimizing the risk of fluid alteration in single-use or repeat-use applications. Chem-Durance Bio delivers excellent performance in pressure and vacuum applications and when pumping viscous fluids.

This unique tubing leverages advanced polymer technology to provide a flexible, pumpable tubing formulation for demanding fluid transfer applications requiring chemical compatibility, purity, and reliable pump life.

Test results have demonstrated pump life up to 5,000 hours at 100 rpm and 0 psi, and up to 1,000 hours at 600 rpm and 0 psi. Chem-Durance Bio has also been tested at pressures up to 40 psi, achieving a life of 200 hours at 100 rpm.



CERTIFICATION

USP Class VI and FDA

APPLICATIONS

- Chemical sampling and transfer
- Ultra-filtration
- Semiconductor processing

FEATURES/BENEFITS

- Exceptional chemical resistance, impressive durability under pressure, and long operational life
- Biocompatible, low-spallation formulation helps protect product purity
- Opaque tubing—perfect for light sensitive samples
- Plasticizer-free inner liner
- Genuine Masterflex tubing undergoes robust testing to provide optimal performance and pump life hours with peristaltic pump equipment
- Precision extruded to tight tolerances for long life, high accuracy, and reproducibility

USA	+1.800.323.4340
	+1.847.549.7600
Canada	+1.800.363.5900
India	+1.800.266.1244
China	+86.21.5109.9909

UK	+44 (0) 1480.272279
	+33 (0) 1 87 17 01 42*
	+49 (0) 937 792030*
Italy	+39.02.84349215
All others	+1.847.549.7600

Physical Properties

Property		Value
Durometer		64 Shore A
Temperature Range	Static	–60 to 74 °C (–76 to 165 °F)
	Dynamic (pumping)	–0 to 40 °C (32 to 104 °F)
Sterilization		Autoclave, ethylene oxide (EtO), or gamma irradiation
Color		Opaque beige
Chemical Compatibility	Acids	Excellent
	Alkalies	Excellent
	Organic Solvents	Good

Specification and Ordering Table – Masterflex® Pump Tubing

Dimensions		Max Pressure psi (bar)	Max Vacuum in. Hg (mm Hg)	Suction Lift ft H ₂ O (m H ₂ O)	Pump Tubing		2-Stop Tubing	
Tubing Size	Hose Barb Size in. (mm)				Length (ft)	Item number	Tubes/Pk (Length)	Item number
L/S® Precision Pump Tubing								
L/S 13	1/16" (1.6)	40 (2.7)	26 (660)	29 (8.8)	50	68702-26	8 (15")	68708-00
L/S 14	1/16" (1.6)	40 (2.7)	26 (660)	29 (8.8)	50	68702-27	8 (15")	68708-01
L/S 16	1/8" (3.2)	40 (2.7)	26 (660)	29 (8.8)	50	68702-29	8 (15")	68708-03
L/S 25	3/16" (4.8)	35 (2.4)	26 (660)	29 (8.8)	50	68702-33	8 (15")	68708-04
L/S 17	1/4" (6.4)	20 (1.4)	20 (510)	22 (6.7)	50	68702-30	—	
L/S 18	3/8" (9.5)	15 (1)	20 (510)	22 (6.7)	50	68702-31	—	
L/S® High-Performance Precision Pump Tubing								
L/S 15	3/16" (4.8)	40 (2.7)	26 (660)	29 (8.8)	50	68702-28	4 (15")	68708-02
L/S 24	1/4" (6.4)	40 (2.7)	26 (660)	29 (8.8)	50	68702-32	—	
L/S 35	3/8" (9.5)	35 (2.4)	26 (660)	29 (8.8)	50	68702-35	4 (15")	68708-05
L/S 36	3/8" (9.5)	20 (1.4)	24 (610)	27 (8.3)	50	68702-36	—	
I/P® Precision Pump Tubing								
I/P 26	1/4" (6.4)	40 (2.7)	26 (660)	29 (8.8)	50	68702-34	—	
I/P 73	3/8" (9.5)	40 (2.7)	26 (660)	29 (8.8)	50	68702-38	—	
I/P 82	1/2" (12.7)	20 (1.4)	20 (510)	23 (7)	50	68702-39	—	
I/P® High-Performance Precision Pump Tubing								
I/P 70	3/8" (9.5)	40 (2.7)	26 (660)	29 (8.8)	50	68702-37	—	
I/P 88	1/2" (12.7)	35 (2.4)	26 (660)	29 (8.8)	50	68702-40	—	
I/P 89	5/8" (15.9)	20 (1.4)	24 (610)	27 (8.3)	50	68702-41	—	

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Tubing Size	Hose Barb Size in. (mm)				Length (ft)	Item number	Tubes/Pk (Length)	Item number
B/T® PerfectPosition® Pump Tubing								
B/T 87	1/2" (12.7)	35 (2.4)	26 (660)	29 (8.8)	10	68702-42	—	
B/T 91	3/4" (19)	30 (2.06)	26 (660)	29 (8.8)	10	68702-43	—	

Specification and Ordering Table – Ismatec® Pump Tubing

Tubing ID (mm)	Color-Coded Stops	2-Stop Tubing		3-Stop Tubing		Extension Tubing	
		Tubes/Pk (Length)	Item number	Tubes/Pk (Length)	Item number	Length (ft)	Item Number
0.38	Orange/Green	6 (16")	68708-15	6 (16")	68708-21	100	68708-28
0.51	Orange/Yellow	6 (16")	68708-16	6 (16")	68708-22	100	68708-29
0.76	Black/Black	—		6 (16")	68708-23	100	68708-30
1.14	Red/Red	6 (16")	68708-17	6 (16")	68708-24	100	68708-31
1.52	Yellow/Blue	6 (16")	68708-18	6 (16")	68708-25	100	68708-32
2.06	Purple/Purple	6 (16")	68708-19	6 (16")	68708-26	100	68708-33
2.79	Purple/White	6 (16")	68708-20	6 (16")	68708-27	100	68708-34