



Platinum-Cured Silicone Tubing | mitos-P

- Ideal for manifold assemblies

mitos-P is a non-reinforced platinum-cured silicone tubing with lot and part number etched directly onto the tubing. mitos-P is well suited for performance in applications requiring use of peristaltic pumps and / or molded assemblies.

This precision tubing is manufactured with an automated control system that repeatedly measures the inner bore and wall thickness, maintaining a 0.002" to 0.008" tolerance.

Features and Benefits

- Lot number, tube ID and wall thickness marked on each tube
- Tightest wall tolerance available (0.002" to 0.008")
- Ideal for molding with other silicones into manifold assemblies (Ts, Ys, crosses, elbows and reducers)
- Certificate of conformance included with each order
- Manufactured in ISO Class 7 cleanroom
- Can be chemically or mechanically cleaned and can be sterilized by chemicals, autoclave or gamma-irradiation
- Available in four different wall thicknesses and internal diameters up to 1 inch



Ideal for use in peristaltic pumps and molded assemblies

mitos-P is the preferred platinum-cured silicone tubing for use in peristaltic pumps and molded assemblies because of its consistency in dimensions. This consistency delivers optimum performance in both applications by providing steady flow rates during pumping and by ensuring better bonding during molding, giving greater integrity to the assembly.



Applications

Single-use applications
Molded manifold assemblies
Peristaltic pumps
Bioprocess container systems
Low pressure transfer lines

Specifications

Materials of Construction

- Material: Platinum-cured silicone

Optional Fittings

- Molded tri-clamp
- Radially-crimped 316L stainless steel
- All industry standard connections

Working Temperature Range

-4 °F [-20 °C] to 176 °F [80 °C]

Physical Properties

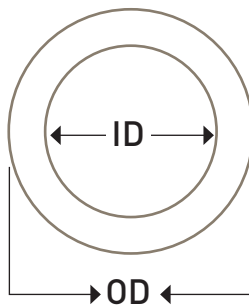
- Elongation at break (%): ASTM D-412 550-1500
- Shore hardness: ASTM D-2240 55-57 Shore A
- Specific gravity: ASTM D-792 1.135-2.37
- Compression set: N/A 5.0-42.5%
- Tear strength: die B(PPI) ASTM D-412 200-500
- Gamma: up to 50 kGy
- Autoclave: 1 bar (14.5 psi) @ 121°C (250°F)

Certified Standard of Compliance

- FDA CFR 177.2600
- USP Class VI
- European Pharmacopoeia 3.1.9
- ISO 10993
- Additional validation testing performed, see validation guide for details

mitos-P biocompatibility, physicochemical and particulate test results

Test Description	Test Reference	Results	Details
Biocompatibility tests			
Biological reactivity test, <i>in vivo</i> Class VI	USP <88>	Pass	Extraction conditions 70 °C
Hemolysis test	ISO 10993-4, ASTM F756-00	Pass	The test article is considered non-hemolytic under the experimental conditions employed
Cytotoxicity	ISO 10993-5	Pass	Test item considered non-cytotoxic
Implantation test	ISO 10993-6	Pass	Did not produce a biological response
Irritation & sanitization	ISO 10993-10	Pass	The skin treated with the test article extracts exhibited no reaction to the challenge (0% sensitization)
Acute systemic toxicity test	ISO 10993-11	Pass	Extraction conditions 70 °C ± 2 °C for 24 hrs
Physicochemical tests			
Test for plastics; Silicone elastomer	EU PH 6 th 2009, 3.1.9	Pass	N/A
Bacterial Endotoxins - LAL test	USP <85>	Report	100 cm ² of the test article contains 0.6505 EU (0.0121 EU/ml)
TOC analysis	USP 32, NF 27, 2009 <643>	Report	1.992 mg C/L
USP particulate / microscopic particulate count	USP 32, NF 27, 2009 <788>	Report	5 particulates / mL with size ≥ 25 µm



Sizes

Part Number	ID (in.)	OD (in.)	Wall (in.)	Pump size	Burst Pressure (psi)
02-MITOS-P-2	1/8	1/4	1/16	300 / 500	80
02-MITOS-P-3	1/8	5/16	3/32	300 / 500	120
03-MITOS-P-2	3/16	5/16	1/16	300 / 500	60
03-MITOS-P-3	3/16	3/8	3/32	300 / 500	80
04-MITOS-P-2	1/4	3/8	1/16	300 / 500	50
04-MITOS-P-3	1/4	7/16	3/32	300 / 500	60
04-MITOS-P-4	1/4	1/2	1/8	600	80
05-MITOS-P-2	5/16	7/16	1/16	600	30
05-MITOS-P-3	5/16	1/2	3/32	600	50
06-MITOS-P-4	3/8	5/8	1/8	600	60
06-MITOS-P-5	3/8	3/4	3/16	700	80
08-MITOS-P-4	1/2	3/4	1/8	600	50
08-MITOS-P-5	1/2	7/8	3/16	700	60
10-MITOS-P-4	5/8	7/8	1/8	700	30
10-MITOS-P-5	5/8	1	3/16	700	50
12-MITOS-P-5	3/4	1 1/8	3/16	700	50
16-MITOS-P-5	1	1 3/8	3/16	700	30

Parker technologies can be combined to produce integrated solutions that will speed up development times, increase efficiency and safety, and guarantee reproducible product quality.

