

Biopharmaceutical Grade Platinum-Cured Silicone Tubing

The platinum-cured silicone tubing is semi-transparent soft tubing. To meet diverse application needs in the pharmaceutical industry, LePure Biotech has developed four series: PHA50, PHA60, PHA65, and PHA80.

- PHA50 & PHA60: Primarily used for liquid transfer and pump applications.
- PHA65 & PHA80: Designed for high-pressure scenarios, offering superior crush resistance and kink resistance.



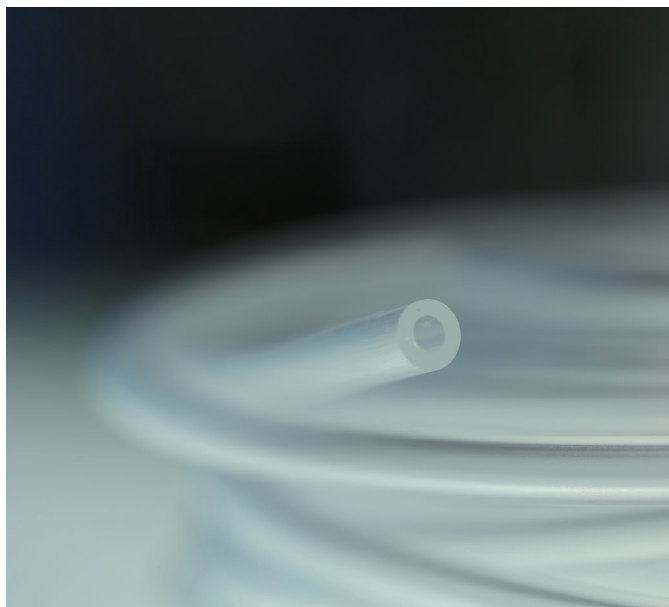
PHA50 Platinum-Cured Silicone Tubing

Pharmaceutical-grade silicone tubing for peristaltic pumps, designed for high-purity fluid transfer. High flexibility ensures durability and consistent performance in bioprocessing applications.



PHA60 Platinum-Cured Silicone Tubing

Specifically designed for pharmaceutical use, this high-precision peristaltic pump tubing offers superior pressure resistance compared to PHA50. Its durable silicone formulation withstands repeated compression while ensuring reliable performance. Validated through mechanical, lifespan, and biocompatibility testing, it supports longer production cycles and reduces the risk of pump failure.



PHA65 Platinum-Cured Silicone Tubing

This platinum-cured silicone tubing features increased hardness for enhanced pressure and kink resistance. Specifically developed for pharmaceutical applications, it is ideal for short-term pump use and withstands extreme temperatures from -50 °C to 200 °C.



PHA80 Platinum-Cured Silicone Tubing

High-hardness platinum-cured silicone tubing with superior pressure and kink resistance, as well as excellent resistance to compression set. Suitable as a braided-tubing replacement for high-flow, high-pressure applications such as chromatography, virus filtration, TFF, and online filter integrity testing.

Product Features

	PHA50	PHA60	PHA65	PHA80
Material	Platinum-cured silicone	Platinum-cured silicone	Platinum-cured silicone	Platinum-cured silicone
Hardness	50±5	60±5	65±5	80±5
Color	Semi - transparent	Semi - transparent	Semi - transparent	Semi - transparent
Temperature Range	-50°C~200°C	-50°C~200°C	-50°C~200°C	-50°C~200°C
Sterilization Method	Gamma irradiation: 25 - 40kGy Autoclaving: 121°C, 30min			
Applications	- Preparation of culture medium/buffer - Cell culture/harvesting - Peristaltic pump tubing - Filter purification - Assembly of single - use systems	- Preparation of culture medium/buffer - Cell culture/harvesting - Peristaltic pump tubing - Filter purification - Assembly of single - use systems	- Deep filtration - Chromatography - Nanofiltration - TFF - Assembly of single - use systems	- High - flow fluid transfer - Chromatography - Nanofiltration - TFF - Assembly of single - use systems
Features	- High elasticity - Low compressive deformation - Low leachate level - Semi - transparent, high visibility	- High elasticity - Low compressive deformation - Low leachate level - Peristaltic pump tubing, reducing knotting effect	- Pump tubing for a short time - Extremely low leachate level - High torsional resistance - High pressure and vacuum resistance	- High pressure resistance - Good vacuum resistance - High torsional resistance - High - flow fluid transfer
Shelf life	5years			

Quality Standards

Products are produced under Class C cleanroom conditions.

The production site has obtained ISO 13485:2016 quality management system certification.

Physical Parameters

Test Standard	Test Item	Unit	PHA50	PHA60	PHA65	PHA80
ASTM D2240	Hardness	Shore A	50±5	60±5	65±5	80±5
ASTM D412	Tensile Strength	Mpa	≥6.68	≥6.5	≥6.5	≥6
ASTM D412	Elongation at Break	%	≥280	≥250	≥200	≥200
ASTM D624	Tear Strength	kN/m	≥27	≥21	≥6	≥8

Biocompatibility

Standard	Test Item	Test Result
ISO 10993-4	Hemolysis Test	Pass
ISO 10993-5	Cytotoxicity	Pass
ISO 10993-10	Sensitization Test	Pass
ISO 10993-11	Acute Systemic Toxicity Test	Pass
USP <87>	In Vitro Biological Response	Pass
USP <88>	In Vivo Biological Response	Pass

Regulatory Compliance

Regulatory Compliance	Test Item	Test Result
USP <381>	Injectable Use Elastic Seal Components	Pass
USP <661>	Physical and Chemical Tests	Pass
USP <85>	Bacterial Endotoxins	<0.25EU/mL
USP <788>	Insoluble Particles	≥10μm: ≤25个/mL ≥25μm: ≤3个/mL
EP3.1.9	Seal Components and Silicone Elastic Bodies for Pipes	Pass

Ordering information

PHA 50

Cat. No.	ID*OD*wall thickness (inch)	ID*OD*wall thickness (mm)	Tubing	Packing Specification
LEPT50P-031-156	1/32"*5/32"*1/16"	0.8*4*1.6	13#	50FT
LEPT50P-063-188	1/16"*3/16"*1/16"	1.6*4.8*1.6	14#	50FT
LEPT50P-125-250	1/8"*1/4"*1/16"	3.2*6.4*1.6	16#	50FT
LEPT50P-188-313	3/16"*5/16"*1/16"	4.8*8*1.6	25#	50FT
LEPT50P-250-375	1/4"*3/8"*1/16"	6.4*9.5*1.6	17#	50FT
LEPT50P-313-438	5/16"*7/16"*1/16"	8*11.1*1.6	18#	50FT
LEPT50P-094-219	3/32"*7/32"*1/16"	2.4*5.6*1.6	19#	50FT
LEPT50P-188-375	3/16"*3/8"*3/32"	4.8*9.5*2.4	15#	50FT
LEPT50P-250-438	1/4"*7/16"*3/32"	6.4*11.1*2.4	24#	50FT
LEPT50P-313-500	5/16"*1/2"*3/32"	8*12.7*2.4	35#	50FT
LEPT50P-375-563	3/8"*9/16"*3/32"	9.5*14.3*2.4	36#	50FT
LEPT50P-250-500	1/4"*1/2"*1/8"	6.4*12.7*3.2	26#	50FT
LEPT50P-375-625	3/8"*5/8"*1/8"	9.5*15.9*3.2	73#	50FT
LEPT50P-500-750	1/2"*3/4"*1/8"	12.7*19.1*3.2	82#	50FT
LEPT50P-500-875	1/2"*7/8"*3/16"	12.7*22.2*4.8	88#	50FT
LEPT50P-625-1000	5/8"*1"*3/16"	15.9*25.4*4.8	89#	50FT
LEPT50P-1000-1375	1"*1-3/8"*3/16"	25.4*34.9*4.8	92#	50FT
LEPT50P-375-750	3/8"*3/4"*3/16"	9.6*19.1*4.8	70#	50FT
LEPT50P-375-875	3/8"*7/8"*1/4	9.6*22.2*6.4	86#	50FT
LEPT50P-500-1000	1/2"*1"*1/4	12.7*24.4*6.4	87#	50FT
LEPT50P-750-1250	3/4"*1-1/4"*1/4	19.1*31.8*6.4	90#	50FT

Note:

1. The table lists standard in-stock product codes. For special requirements (e.g., length, dimensions, or irradiation sterilization), please contact your local sales representative immediately.
2. The products listed in the table are sold in a non-sterile form. Sterile versions are available, with sterilization performed via gamma irradiation at a dose of 25–45 kGy. The product code naming convention for irradiated sterilization is as follows:

Non-sterile: LEPT50P-031-156

Sterile: LEPT50P-031-156-G

PHA 60

Cat. No.	ID*OD*wall thickness (inch)	ID*OD*wall thickness (mm)	Tubing	Packing Specification
LEPT60P-031-156	1/32"*5/32"*1/16"	0.8*4*1.6	13#	50FT
LEPT60P-063-188	1/16"*3/16"*1/16"	1.6*4.8*1.6	14#	50FT
LEPT60P-125-250	1/8"*1/4"*1/16"	3.2*6.4*1.6	16#	50FT
LEPT60P-188-313	3/16"*5/16"*1/16"	4.8*8*1.6	25#	50FT
LEPT60P-250-375	1/4"*3/8"*1/16"	6.4*9.5*1.6	17#	50FT
LEPT60P-313-438	5/16"*7/16"*1/16"	8*11.1*1.6	18#	50FT
LEPT60P-188-375	3/16"*3/8"*3/32"	4.8*9.5*2.4	15#	50FT
LEPT60P-250-438	1/4"*7/16"*3/32"	6.4*11.1*2.4	24#	50FT
LEPT60P-313-500	5/16"*1/2"*3/32"	8*12.7*2.4	35#	50FT
LEPT60P-375-563	3/8"*9/16"*3/32"	9.5*14.3*2.4	36#	50FT
LEPT60P-250-500	1/4"*1/2"*1/8"	6.4*12.7*3.2	26#	50FT
LEPT60P-375-625	3/8"*5/8"*1/8"	9.5*15.9*3.2	73#	50FT
LEPT60P-500-750	1/2"*3/4"*1/8"	12.7*19.1*3.2	82#	50FT
LEPT60P-500-875	1/2"*7/8"*3/16"	12.7*22.2*4.8	88#	50FT
LEPT60P-625-1000	5/8"*1"*3/16"	15.9*25.4*4.8	89#	50FT
LEPT60P-1000-1375	1"*1-3/8"*3/16"	25.4*34.9*4.8	92#	50FT
LEPT60P-375-750	3/8"*3/4"*3/16"	9.6*19.1*4.8	70#	50FT
LEPT60P-375-875	3/8"*7/8"*1/4"	9.6*22.2*6.4	86#	50FT
LEPT60P-500-1000	1/2"*1"*1/4"	12.7*24.4*6.4	87#	50FT
LEPT60P-750-1250	3/4"*1-1/4"*1/4"	19.1*31.8*6.4	90#	50FT

Note:

1. The table lists standard in-stock product codes. For special requirements (e.g., length, dimensions, or irradiation sterilization), please contact your local sales representative immediately.
2. The products listed in the table are sold in a non-sterile form. Sterile versions are available, with sterilization performed via gamma irradiation at a dose of 25–45 kGy. The product code naming convention for irradiated sterilization is as follows:

Non-sterile: LEPT60P-031-156

Sterile: LEPT60P-031-156-G

PHA 65

Cat. No.	ID*OD*wall thickness (inch)	ID*OD*wall thickness (mm)	Tubing	Packing Specification
LEPT65T-120-240	3/25"*6/25"*3/50"	3*6*1.5	/	50FT
LEPT65T-250-500	1/4"*1/2"*1/8"	6.4*12.7*3.2	26#	50FT
LEPT65T-375-625	3/8"*5/8"*1/8"	9.6*15.9*3.2	73#	50FT
LEPT65T-500-750	1/2"*3/4"*1/8"	12.7*19.1*3.2	82#	50FT
LEPT65T-063-188	1/16"*3/16"*1/16"	1.6*4.78*1.6	14#	50FT
LEPT65T-394-632	13/33"*12/19"*3/25"	10*16*3	/	50FT
LEPT65T-188-313	3/16"*5/16"*1/16"	4.8*8*1.6	25#	50FT
LEPT65T-188-375	3/16"*3/8"*3/32"	4.8*9.6*2.4	15#	50FT
LEPT65T-250-375	1/4"*3/8"*1/16"	6.4*9.6*1.6	17#	50FT
LEPT65T-125-250	1/8"*1/4"*1/16"	3.2*6.4*1.6	16#	50FT
LEPT65T-250-438	1/4"*7/16"*3/32"	6.4*11.1*2.4	24#	50FT
LEPT65T-125-313	1/8"*5/16"*3/32"	3.2*7.94*2.4	/	50FT
LEPT65T-156-394	5/32"*13/33"*3/25"	3.99*10*3	/	50FT
LEPT65T-094-219	3/32"*7/32"*1/16"	2.39*5.54*1.6	/	50FT
LEPT65T-750-1000S	3/4"*1"*1/8"	19.1*25.4*3.2	/	25FT
LEPT65T-1000-1375S	1"*1-3/8"*3/16"	25.4*34.93*4.8	92#	25FT

Note:

1. The table lists standard in-stock product codes. For special requirements (e.g., length, dimensions, or irradiation sterilization), please contact your local sales representative immediately.
2. The products listed in the table are sold in a non-sterile form. Sterile versions are available, with sterilization performed via gamma irradiation at a dose of 25–45 kGy. The product code naming convention for irradiated sterilization is as follows:

Non-sterile: LEPT65T-120-240

Sterile: LEPT65T-120-240-G

PHA 80

Cat. No.	ID*OD*wall thickness (inch)	ID*OD*wall thickness (mm)	Tubing	Packing Specification
LEPT80T-375-625	3/8"*5/8"*1/8"	9.6*15.9*3.2	73#	50FT
LEPT80T-500-750	1/2"*3/4"*1/8"	12.7*19.1*3.2	82#	50FT
LEPT80T-625-875	5/8"*7/8"*1/8"	15.9*22.23*3.2	/	50FT
LEPT80T-250-375	1/4"*3/8"*1/16"	6.4*9.6*1.6	17#	50FT
LEPT80T-125-250	1/8*1/4*1/16"	3.2*6.4*1.6	16#	50FT
LEPT80T-188-313	3/16*5/16*1/16"	4.8*8*1.6	25#	50FT
LEPT80T-500-875	1/2*7/8*3/16"	12.7*22.2*4.8	/	50FT
LEPT80T-094-219	3/32"*7/32"*1/16"	2.39*5.54*1.6	/	50FT
LEPT80T-125-313	1/8*5/16*3/32"	3.2*7.94*2.4	/	50FT
LEPT80T-063-188	1/16"*3/16"*1/16"	1.6*4.78*1.6	14#	50FT
LEPT80T-750-1125S	3/4"*1-1/8"*3/16"	19.1*28.6*4.8	/	25FT
LEPT80T-1000-1250S	1"*1-1/4"*1/8"	25.4*31.8*3.2	/	25FT
LEPT80T-1000-1375S	1"*1-3/8"*3/16"	25.4*34.93*4.8	92#	25FT
LEPT80T-0750-1000S	3/4"*1"*1/8"	19.1*25.4*3.2	/	25FT

Note:

1. The table lists standard in-stock product codes. For special requirements (e.g., length, dimensions, or irradiation sterilization), please contact your local sales representative immediately.
2. The products listed in the table are sold in a non-sterile form. Sterile versions are available, with sterilization performed via gamma irradiation at a dose of 25–45 kGy. The product code naming convention for irradiated sterilization is as follows:

Non-sterile: LEPT80T-375-625

Sterile: LEPT80T-375-625-G