



斯瑞漢
—TRI-WIN—

产 品 资 料

Medical-grade tubing

Applied to every stage of the production process

Tubing User Manual



斯瑞漢
—TRI-WIN—

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Note: TW stands for the abbreviation of “Siruisheng”; T refers to Transfer Tubing; P refers to Pump Tubing; H, M, G, 80, 70, 50 indicate the silicone grade.

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Medical-Grade Silicone Transfer Tubing

(1) TWTG Precision Filling Silicone Tubing

TWTG Silicone Tubing is designed with an inner surface to minimize particle retention and aggregation risk during fluid transfer. Its relatively smooth fluid channel helps maintain absolute cleanliness in fluid transfer systems. The smooth inner surface reduces surface area, enhancing fluid flow and enabling more precise filling accuracy.



Hose Standard Sizes*

Item No	Tube N	ID (In)	ID (mm)	OD (In)	OD (mm)	Wall (mm)	Length/Pack
TWTG-0062-0187	14#	1/16	1.59	3/16	4.78	1.6	15m
TWTG-0125-0250	16#	1/8	3.18	1/4	6.35	1.6	15m
TWTG-0187-0312	25#	3/16	4.78	5/16	7.95	1.6	15m
TWTG-0250-0375	17#	1/4	6.35	3/8	9.53	1.6	15m
TWTG-0094-0220	19#	3/32	2.38	7/32	5.56	1.6	15m
TWTG-0125-0312	20#	1/8	3.18	5/16	7.95	2.4	15m
TWTG-0312-0437	18#	5/16	7.95	7/16	11.13	1.6	15m
TWTG-0187-0375	15#	3/16	4.78	3/8	9.53	2.4	15m
TWTG-0250-0437	24#	1/4	6.35	7/16	11.13	2.4	15m
TWTG-0312-0500	35#	5/16	7.95	1/2	12.70	2.4	15m
TWTG-0375-0562	36#	3/8	9.53	9/16	14.29	2.4	15m
TWTG-0250-0500	26#	1/4	6.35	1/2	12.70	3.2	15m
TWTG-0375-0625	73#	3/8	9.53	5/8	15.88	3.2	15m
TWTG-0500-0750	82#	1/2	12.70	3/4	19.05	3.2	15m
TWTG-0750-1125	191#	3/4	19.05	9/8	28.58	4.8	15m 或 7.5m
TWTG-0625-1000	89#	5/8	15.88	1/1	25.40	4.8	15m 或 7.5m
TWTG-1000-1375	92#	1	25.40	11/8	35.00	4.8	7.5m

*Sizes and pack lengths can also be customized according to customer requirements.

Physical Properties

Item	Method	Value / Grade
Appearance	—	Translucent
Shore Hardness	ASTM D2240	50
Tensile Strength	ASTM D412	10.5MPa (1522Psi)
Elongation at Break	ASTM D412	730%
Specific Gravity	ASTM D792	1.14
Tear Strength	ASTM D624	45KN/m

Medical-Grade Silicone Transfer Tubing

(2) TWTM High-Purity Platinum-Cured Silicone Tubing

TWTM Silicone Tubing is manufactured from high-purity, medical- and pharmaceutical-grade materials. It is highly flexible, odorless, and tasteless. The platinum-cured process allows it to withstand high temperatures, radiation, and ethylene oxide sterilization. It is especially suitable for applications in biopharmaceutical cell collection, fluid transfer, and related fields.



Hose Standard Sizes*

Item	Tube N	ID (In)	ID (mm)	OD (In)	OD (mm)	Wall (mm)	Length/Pack
TWTM-0062-0187	14#	1/16	1.59	3/16	4.78	1.6	15m
TWTM-0125-0250	16#	1/8	3.18	1/4	6.35	1.6	15m
TWTM-0187-0312	25#	3/16	4.78	5/16	7.95	1.6	15m
TWTM-0250-0375	17#	1/4	6.35	3/8	9.53	1.6	15m
TWTM-0094-0220	19#	3/32	2.38	7/32	5.56	1.6	15m
TWTM-0125-0312	20#	1/8	3.18	5/16	7.95	2.4	15m
TWTM-0312-0437	18#	5/16	7.95	7/16	11.13	1.6	15m
TWTM-0187-0375	15#	3/16	4.78	3/8	9.53	2.4	15m
TWTM-0250-0437	24#	1/4	6.35	7/16	11.13	2.4	15m
TWTM-0312-0500	35#	5/16	7.95	1/2	12.70	2.4	15m
TWTM-0375-0562	36#	3/8	9.53	9/16	14.29	2.4	15m
TWTM-0250-0500	26#	1/4	6.35	1/2	12.70	3.2	15m
TWTM-0375-0625	73#	3/8	9.53	5/8	15.88	3.2	15m
TWTM-0500-0750	82#	1/2	12.70	3/4	19.05	3.2	15m
TWTM-0750-1125	191#	3/4	19.05	9/8	28.58	4.8	15m 或 7.5m
TWTM-0625-1000	89#	5/8	15.88	1/1	25.40	4.8	15m 或 7.5m
TWTM-1000-1375	92#	1	25.40	11/8	35.00	4.8	7.5m

Sizes and pack lengths can also be customized according to customer requirements.

Physical Properties

Item	Method	Value / Grade
Appearance	—	Translucent
Shore Hardness	ASTM D2240	50
Tensile Strength	ASTM D412	8.78MPa (1273Psi)
Elongation at Break	ASTM D412	723%
Specific Gravity	ASTM D792	1.16
Tear Strength	ASTM D624	41KN/m

Medical-Grade Silicone Transfer Tubing

(3) TWTU Ultra High-Purity Platinum-Cured Silicone Tubing

TWTU Silicone Tubing is made from ultra high-purity, medical- and pharmaceutical-grade materials sourced from top international brands. It features high flexibility, ultra-low extractables, and is produced using a platinum-cured process, allowing it to withstand high temperatures, radiation, and ethylene oxide sterilization. As a premium product, TWTU meets the stricter requirements of the biopharmaceutical industry and is especially suitable for applications such as biopharmaceutical cell collection and fluid transfer.



Hose Standard Sizes*

Item	Tube N	ID (In)	ID (mm)	OD (In)	OD (mm)	Wall (mm)	Length/Pack
TWTU-0062-0187	14#	1/16	1.59	3/16	4.78	1.6	15m
TWTU-0125-0250	16#	1/8	3.18	1/4	6.35	1.6	15m
TWTU-0187-0312	25#	3/16	4.78	5/16	7.95	1.6	15m
TWTU-0250-0375	17#	1/4	6.35	3/8	9.53	1.6	15m
TWTU-0094-0220	19#	3/32	2.38	7/32	5.56	1.6	15m
TWTU-0125-0312	20#	1/8	3.18	5/16	7.95	2.4	15m
TWTU-0312-0437	18#	5/16	7.95	7/16	11.13	1.6	15m
TWTU-0187-0375	15#	3/16	4.78	3/8	9.53	2.4	15m
TWTU-0250-0437	24#	1/4	6.35	7/16	11.13	2.4	15m
TWTU-0312-0500	35#	5/16	7.95	1/2	12.70	2.4	15m
TWTU-0375-0562	36#	3/8	9.53	9/16	14.29	2.4	15m
TWTU-0250-0500	26#	1/4	6.35	1/2	12.70	3.2	15m
TWTU-0375-0625	73#	3/8	9.53	5/8	15.88	3.2	15m
TWTU-0500-0750	82#	1/2	12.70	3/4	19.05	3.2	15m
TWTU-0750-1125	191#	3/4	19.05	9/8	28.58	4.8	15m 或 7.5m
TWTU-0625-1000	89#	5/8	15.88	1/1	25.40	4.8	15m 或 7.5m
TWTU-1000-1375	92#	1	25.40	11/8	35.00	4.8	7.5m

Sizes and pack lengths can also be customized according to customer requirements.

Physical Properties

Item	Method	Value / Grade
Appearance	—	Translucent
Shore Hardness	ASTM D2240	65
Tensile Strength	ASTM D412	9.6MPa (1391Psi)
Elongation at Break	ASTM D412	621%
Specific Gravity	ASTM D792	1.18
Tear Strength	ASTM D624	39KN/m

Medical-Grade Silicone Transfer Tubing

(4) TWT80 超耐压传输管

TWT80 Silicone Tubing features high kink resistance and pressure tolerance, making it a suitable alternative for customers considering braided tubing (as cross-sections of braided tubing in cleanroom environments may shed fibers). The burst pressure of TWT80 tubing can reach up to 17 bar (for #17 tubing).



Hose Standard Sizes*

Item	Tube N	ID (In)	ID (mm)	OD (In)	OD (mm)	Wall (mm)	Length/Pack
TWT80-0062-0187	14#	1/16	1.59	3/16	4.78	1.6	15m
TWT80-0125-0250	16#	1/8	3.18	1/4	6.35	1.6	15m
TWT80-0187-0312	25#	3/16	4.78	5/16	7.95	1.6	15m
TWT80-0250-0375	17#	1/4	6.35	3/8	9.53	1.6	15m
TWT80-0094-0220	19#	3/32	2.38	7/32	5.56	1.6	15m
TWT80-0125-0312	20#	1/8	3.18	5/16	7.95	2.4	15m
TWT80-0312-0437	18#	5/16	7.95	7/16	11.13	1.6	15m
TWT80-0187-0375	15#	3/16	4.78	3/8	9.53	2.4	15m
TWT80-0250-0437	24#	1/4	6.35	7/16	11.13	2.4	15m
TWT80-0312-0500	35#	5/16	7.95	1/2	12.70	2.4	15m
TWT80-0375-0562	36#	3/8	9.53	9/16	14.29	2.4	15m
TWT80-0250-0500	26#	1/4	6.35	1/2	12.70	3.2	15m
TWT80-0375-0625	73#	3/8	9.53	5/8	15.88	3.2	15m
TWT80-0500-0750	82#	1/2	12.70	3/4	19.05	3.2	15m
TWT80-0750-1125	191#	3/4	19.05	9/8	28.58	4.8	15m 或 7.5m
TWT80-0625-1000	89#	5/8	15.88	1/1	25.40	4.8	15m 或 7.5m
TWT80-1000-1375	92#	1	25.40	11/8	35.00	4.8	7.5m

Sizes and pack lengths can also be customized according to customer requirements.

Physical Properties

Item	Method	Value / Grade
Appearance	—	Translucent
Shore Hardness	ASTM D2240	80
Tensile Strength	ASTM D412	7.2MPa (1043Psi)
Elongation at Break	ASTM D412	320%
Specific Gravity	ASTM D792	1.22

Medical-Grade Silicone Transfer Tubing

(5) TWTLT Ultra Low-Temperature Resistant Transfer Tubing

TWTLT Silicone Tubing maintains excellent physical properties even at temperatures as low as -114°C . In certain specialized applications, such as mRNA cryopreservation in biopharmaceuticals, low-temperature storage and transport require resistance far below -40°C , reaching -80°C or even -112°C .



Hose Standard Sizes*

Item	Tube N	ID (In)	ID (mm)	OD (In)	OD (mm)	Wall (mm)	Length/Pack
TWTLT-0062-0187	14#	1/16	1.59	3/16	4.78	1.6	15m
TWTLT-0125-0250	16#	1/8	3.18	1/4	6.35	1.6	15m
TWTLT-0187-0312	25#	3/16	4.78	5/16	7.95	1.6	15m
TWTLT-0250-0375	17#	1/4	6.35	3/8	9.53	1.6	15m
TWTLT-0094-0220	19#	3/32	2.38	7/32	5.56	1.6	15m
TWTLT-0125-0312	20#	1/8	3.18	5/16	7.95	2.4	15m
TWTLT-0312-0437	18#	5/16	7.95	7/16	11.13	1.6	15m
TWTLT-0187-0375	15#	3/16	4.78	3/8	9.53	2.4	15m
TWTLT-0250-0437	24#	1/4	6.35	7/16	11.13	2.4	15m
TWTLT-0312-0500	35#	5/16	7.95	1/2	12.70	2.4	15m
TWTLT-0375-0562	36#	3/8	9.53	9/16	14.29	2.4	15m
TWTLT-0250-0500	26#	1/4	6.35	1/2	12.70	3.2	15m
TWTLT-0375-0625	73#	3/8	9.53	5/8	15.88	3.2	15m
TWTLT-0500-0750	82#	1/2	12.70	3/4	19.05	3.2	15m
TWTLT-0750-1125	191#	3/4	19.05	9/8	28.58	4.8	15m 或 7.5m
TWTLT-0625-1000	89#	5/8	15.88	1/1	25.40	4.8	15m 或 7.5m
TWTLT-1000-1375	92#	1	25.40	11/8	35.00	4.8	7.5m

Sizes and pack lengths can also be customized according to customer requirements.

Physical Properties

Item	Method	Value / Grade
Appearance	—	Translucent
Shore Hardness	ASTM D2240	45
Tensile Strength	ASTM D412	9.2MPa (1333Psi)
Elongation at Break	ASTM D412	850%
Specific Gravity	ASTM D792	1.20

Medical-Grade Silicone Transfer Tubing

(1) TWPG Peristaltic Pump Tubing [Pump Lifespan: 80 Hours (600 rpm)]

TWPG Peristaltic Pump Tubing is a high-quality, high-purity silicone hose specifically designed for peristaltic pumps and pinch valves, making it an ideal choice for peristaltic pump fluid transfer applications. Manufactured using a biotechnologically stabilized process, this tubing offers outstanding strength, performance, and excellent service life. Its ultra-smooth inner surface provides additional benefits for optimized fluid transfer.



Hose Standard Sizes*

Item	Tube N	ID (In)	ID (mm)	OD (In)	OD (mm)	Wall (mm)	Length/Pack
TWPG-0062-0187	14#	1/16	1.59	3/16	4.78	1.6	15m
TWPG-0125-0250	16#	1/8	3.18	1/4	6.35	1.6	15m
TWPG-0187-0312	25#	3/16	4.78	5/16	7.95	1.6	15m
TWPG-0250-0375	17#	1/4	6.35	3/8	9.53	1.6	15m
TWPG-0094-0220	19#	3/32	2.38	7/32	5.56	1.6	15m
TWPG-0125-0312	20#	1/8	3.18	5/16	7.95	2.4	15m
TWPG-0312-0437	18#	5/16	7.95	7/16	11.13	1.6	15m
TWPG-0187-0375	15#	3/16	4.78	3/8	9.53	2.4	15m
TWPG-0250-0437	24#	1/4	6.35	7/16	11.13	2.4	15m
TWPG-0312-0500	35#	5/16	7.95	1/2	12.70	2.4	15m
TWPG-0375-0562	36#	3/8	9.53	9/16	14.29	2.4	15m
TWPG-0250-0500	26#	1/4	6.35	1/2	12.70	3.2	15m
TWPG-0375-0625	73#	3/8	9.53	5/8	15.88	3.2	15m
TWPG-0500-0750	82#	1/2	12.70	3/4	19.05	3.2	15m
TWPG-0750-1125	191#	3/4	19.05	9/8	28.58	4.8	15m 或 7.5m
TWPG-0625-1000	89#	5/8	15.88	1/1	25.40	4.8	15m 或 7.5m
TWPG-1000-1375	92#	1	25.40	11/8	35.00	4.8	7.5m

Sizes and pack lengths can also be customized according to customer requirements.

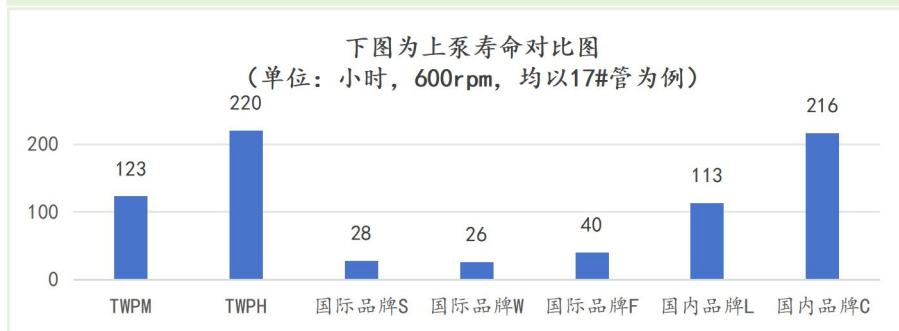
Physical Properties

Item	Method	Value / Grade
		TWPG
Appearance	—	Translucent
Shore Hardness	ASTM D2240	60
Tensile Strength	ASTM D412	8.4MPa (1246Psi)
Elongation at Break	ASTM D412	732%
Specific Gravity	ASTM D792	1.16
Tear Strength	ASTM D624	49KN/m

Medical-Grade Silicone Transfer Tubing

(2) TWPM High-Durability Platinum-Cured Peristaltic Pump Tubing [Pump Lifespan: 100 Hours (600 rpm)]

(3) TWPH Ultra-Long-Life Platinum-Cured Peristaltic Pump Tubing [Pump Lifespan: 200 Hours (600 rpm)]



Hose Standard Sizes*

Item	Tube N	ID (In)	ID (mm)	OD (In)	OD (mm)	Wall (mm)	Length/Pack
TWPM (H) -0062-0187	14#	1/16	1.59	3/16	4.78	1.6	15m
TWPM (H) -0125-0250	16#	1/8	3.18	1/4	6.35	1.6	15m
TWPM (H) -0187-0312	25#	3/16	4.78	5/16	7.95	1.6	15m
TWPM (H) -0250-0375	17#	1/4	6.35	3/8	9.53	1.6	15m
TWPM (H) -0125-0312	20#	1/8	3.18	5/16	7.95	2.4	15m
TWPM (H) -0312-0437	18#	5/16	7.95	7/16	11.13	1.6	15m
TWPM (H) -0187-0375	15#	3/16	4.78	3/8	9.53	2.4	15m
TWPM (H) -0250-0437	24#	1/4	6.35	7/16	11.13	2.4	15m
TWPM (H) -0312-0500	35#	5/16	7.95	1/2	12.70	2.4	15m
TWPM (H) -0375-0562	36#	3/8	9.53	9/16	14.29	2.4	15m
TWPM (H) -0250-0500	26#	1/4	6.35	1/2	12.70	3.2	15m
TWPM (H) -0375-0625	73#	3/8	9.53	5/8	15.88	3.2	15m
TWPM (H) -0500-0750	82#	1/2	12.70	3/4	19.05	3.2	15m
TWPM (H) -0750-1125	191#	3/4	19.05	9/8	28.58	4.8	15m 或 7.5m
TWPM (H) -0625-1000	89#	5/8	15.88	1/1	25.40	4.8	15m 或 7.5m
TWPM (H) -1000-1375	92#	1	25.40	11/8	35.00	4.8	7.5m

Sizes and pack lengths can also be customized according to customer requirements.

Physical Properties

Item	Method	Value / Grade	
		TWPM	TWPH
Appearance	—	Translucent	Translucent
Shore Hardness	ASTM D2240	60	60
Tensile Strength	ASTM D412	8.6MPa (1246Psi)	9.0MPa (1306Psi)
Elongation at Break	ASTM D412	752%	764%
Specific Gravity	ASTM D792	1.16	1.16
Tear Strength	ASTM D624	50KN/m	48.3KN/m

Medical-Grade Silicone Peristaltic Pump Tubing

(4) TWP50 Water-Seepage-Resistant Pump Tubing (Seepage Resistance: 0.3 MPa)

TWP50 Water-Seepage-Resistant Pump Tubing offers excellent physical performance and can quickly stop liquid flow when pumping is interrupted. This prevents fluid from the upstream process from seeping into the downstream process due to pressure. Its pump lifespan meets all process requirements.



Hose Standard Sizes*

Item	No.	ID (in)	ID (mm)	OD (in)	OD (mm)	Wall (mm)	Length/Pack
TWP50-0062-0187	14#	1/16	1.59	3/16	4.78	1.6	15m
TWP50-0125-0250	16#	1/8	3.18	1/4	6.35	1.6	15m
TWP50-0187-0312	25#	3/16	4.78	5/16	7.95	1.6	15m
TWP50-0250-0375	17#	1/4	6.35	3/8	9.53	1.6	15m
TWP50-0094-0220	19#	3/32	2.38	7/32	5.56	1.6	15m
TWP50-0125-0312	20#	1/8	3.18	5/16	7.95	2.4	15m
TWP50-0312-0437	18#	5/16	7.95	7/16	11.13	1.6	15m
TWP50-0187-0375	15#	3/16	4.78	3/8	9.53	2.4	15m
TWP50-0250-0437	24#	1/4	6.35	7/16	11.13	2.4	15m
TWP50-0312-0500	35#	5/16	7.95	1/2	12.70	2.4	15m
TWP50-0375-0562	36#	3/8	9.53	9/16	14.29	2.4	15m
TWP50-0250-0500	26#	1/4	6.35	1/2	12.70	3.2	15m
TWP50-0375-0625	73#	3/8	9.53	5/8	15.88	3.2	15m
TWP50-0500-0750	82#	1/2	12.70	3/4	19.05	3.2	15m
TWP50-0750-1125	191#	3/4	19.05	9/8	28.58	4.8	15m 或 7.5m
TWP50-0625-1000	89#	5/8	15.88	1/1	25.40	4.8	15m 或 7.5m
TWP50-1000-1375	92#	1	25.40	11/8	35.00	4.8	7.5m

Sizes and pack lengths can also be customized according to customer requirements.

Physical Properties

Item	Method	Value / Grade
Appearance	—	Translucent
Shore Hardness	ASTM D2240	50
Tensile Strength	ASTM D412	9.0MPa (1306Psi)
Elongation at Break	ASTM D412	731%
Specific Gravity	ASTM D792	1.15
Tear Strength	ASTM D624	35.3KN/m

Medical-Grade Silicone Peristaltic Pump Tubing

(5) TWP70 Pressure-Resistant Pump Tubing (Operating Pressure: 0.4 MPa)

TWP 70 pressure-resistant pump tubing is suitable for pressurized operating conditions and offers excellent physical performance. It maintains sufficient pump lifespan even under pressure, meeting the requirements of various process applications.



Hose Standard Sizes*

Item	No	ID (in)	ID (mm)	OD (in)	OD (mm)	Wall (mm)	Length/Pack
TWP70-0062-0187	14#	1/16	1.59	3/16	4.78	1.6	15m
TWP70-0125-0250	16#	1/8	3.18	1/4	6.35	1.6	15m
TWP70-0187-0312	25#	3/16	4.78	5/16	7.95	1.6	15m
TWP70-0250-0375	17#	1/4	6.35	3/8	9.53	1.6	15m
TWP70-0094-0220	19#	3/32	2.38	7/32	5.56	1.6	15m
TWP70-0125-0312	20#	1/8	3.18	5/16	7.95	2.4	15m
TWP70-0312-0437	18#	5/16	7.95	7/16	11.13	1.6	15m
TWP70-0187-0375	15#	3/16	4.78	3/8	9.53	2.4	15m
TWP70-0250-0437	24#	1/4	6.35	7/16	11.13	2.4	15m
TWP70-0312-0500	35#	5/16	7.95	1/2	12.70	2.4	15m
TWP70-0375-0562	36#	3/8	9.53	9/16	14.29	2.4	15m
TWP70-0250-0500	26#	1/4	6.35	1/2	12.70	3.2	15m
TWP70-0375-0625	73#	3/8	9.53	5/8	15.88	3.2	15m
TWP70-0500-0750	82#	1/2	12.70	3/4	19.05	3.2	15m
TWP70-0750-1125	191#	3/4	19.05	9/8	28.58	4.8	15m 或 7.5m
TWP70-0625-1000	89#	5/8	15.88	1/1	25.40	4.8	15m 或 7.5m
TWP70-1000-1375	92#	1	25.40	1 1/8	35.00	4.8	7.5m

Sizes and pack lengths can also be customized according to customer requirements.

Physical Properties

Item	Method	Value / Grade
Appearance	—	Translucent
Shore Hardness	ASTM D2240	70
Tensile Strength	ASTM D412	7.62MPa (1104Psi)
Elongation at Break	ASTM D412	151%
Specific Gravity	ASTM D792	1.21
Tear Strength	ASTM D624	865ppi

Features of Medical-Grade Silicone Tubing

- Ultra high-purity, biopharmaceutical-grade silicone material
- Platinum-cured process
- Permanent laser marking of part numbers and batch codes to ensure full product traceability
- Excellent surface smoothness
- High flexibility
- Can withstand multiple sterilizations: high-temperature and high-pressure (121° C for 30 min), irradiation, and ethylene oxide
- Operating temperature range: -65° C to 235° C
- Registered with the U.S. FDA DMF (038278)

Validation Test Report

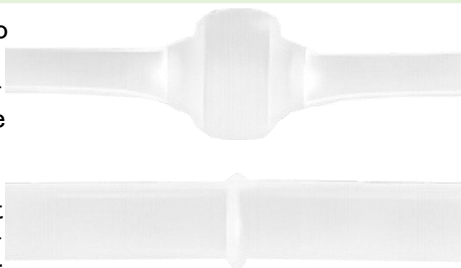
Item	Regulatory Standard	Test Content
Biocompatibility	USP<87>	Cytotoxicity Test
	USP<88>	Acute Systemic Toxicity & Intracutaneous Reactivity Test
	ISO10993-4	In Vitro Hemolysis Test
	ISO10993-5	In Vitro Cytotoxicity
	ISO10993-6	Muscle Implantation Test
	ISO10993-10	Skin Sensitization Test (Sodium Chloride / Sesame Oil Extracts)
	ISO10993-11	Acute Toxicity Test (Sodium Chloride / Sesame Oil Extracts)
Extractables	ISO10993-23	Intracutaneous Reactivity Test
	BPOG	70-Day Soak, High-Temperature and Irradiation Sterilization 24-Hour Soak
Others	EP3.1.9	Seal and Tubing Testing of Silicone Elastomers
	USP<85>	Bacterial Endotoxins
	USP<381>	Injectable Elastomeric Closures
	USP<661>	Physicochemical Properties of Plastics
	FDA 21 CFR 177.2600	Rubber Products
	中国药典	60 Cycles of High-Temperature Sterilization Testing
	中国药典	Insoluble Particles
	中国药典	Microbial Limits
	中国药典	Bacterial Endotoxins
	中国药典	Sterility (Sterilized Products)

You can obtain the relevant documents through company representatives or from the official website of SANLIN.

Medical-Grade TPE Tubing

(1) TW-Flex Medical-Grade Thermoplastic Tubing

TW-Flex Medical-Grade Thermoplastic Tubing is designed to meet the critical requirements of pharmaceutical and biopharmaceutical applications. It offers excellent heat-sealing and sterile-welding capabilities. TW-Flex can be welded with major international brand thermoplastic tubing, achieving a pull-off strength of over 100 N (for 1.6mm wall thickness) after welding. It is available in semi-transparent tubing for visible fluid flow and opaque tubing for light-sensitive applications, making it especially suitable for single-use assemblies.



Hose Standard Sizes*

Item	No.	ID (in)	ID (mm)	OD (in)	OD (mm)	Wall (mm)	Length/Pack
TW-Flex-0125-0250	16#	1/8	3.18	1/4	6.35	1.6	15m
TW-Flex-0250-0375	17#	1/4	6.35	3/8	9.53	1.6	15m
TW-Flex-0250-0437	24#	1/4	6.35	7/16	11.13	2.4	15m
TW-Flex-0187-0312	25#	3/16	4.78	5/16	7.95	1.6	15m
TW-Flex-0312-0500	35#	5/16	7.95	1/2	12.70	2.4	15m
TW-Flex-0375-0562	36#	3/8	9.53	9/16	14.29	2.4	15m
TW-Flex-0375-0625	73#	3/8	9.53	5/8	15.88	3.2	15m
TW-Flex-0500-0750	82#	1/2	12.70	3/4	19.05	3.2	15m
TW-Flex-1000-1375	92#	1	25.40	1 1/8	35.00	4.8	7.5m

Sizes and pack lengths can also be customized according to customer requirements.

Physical Properties

Item	Method	Value / Grade
Appearance	—	Semi-Transparent / Opaque
Shore Hardness	ASTM D2240	60
Tensile Strength	ASTM D412	≥8MPa (≥1160Psi)
Elongation at Break	ASTM D412	≥800%
Specific Gravity	ASTM D792	0.89
Tear Strength	ASTM D624	≥29KN/m

Features of TW-Flex

- Can be sealed and welded before or after sterilization
- Sterilization methods: autoclave at 121 ° C for 30min (repeated high-temperature sterilization may degrade the tubing); recommended irradiation ≤40kGy
- Pyrogen-free, non-cytotoxic, non-hemolytic, and free of animal-derived components
- Maintains flexibility over a temperature range of -45 ° C to 135 ° C
- Significantly lower permeability compared to silicone
- Smooth inner bore ensures excellent fluid flow
- Excellent general chemical resistance, with superior resistance to acids, alkalis, and oxidation

Medical-Grade TPE Tubing

(2) TW-BPT Medical-Grade High-Durability Peristaltic Pump Tubing (1000+ Hours, 600 rpm)

TW-BPT Medical-Grade High-Durability Peristaltic Pump Tubing is specifically designed to withstand the rigorous demands of peristaltic pumping while providing biocompatible fluid-contact surfaces required for sensitive bioprocess applications. Its excellent flex life helps minimize potential downtime caused by pump tubing failure, simplifying biopharmaceutical processes. TW-BPT is available in semi-transparent tubing for visible fluid flow and opaque tubing for light-sensitive applications.



Hose Standard Sizes*

Item	No.	ID (in)	ID (mm)	OD (in)	OD (mm)	Wall (mm)	Length/Pack
TW-BPT-0125-0250	16#	1/8	3.18	1/4	6.35	1.6	15m
TW-BPT-0250-0375	17#	1/4	6.35	3/8	9.53	1.6	15m
TW-BPT-0250-0437	24#	1/4	6.35	7/16	11.13	2.4	15m
TW-BPT-0187-0312	25#	3/16	4.78	5/16	7.95	1.6	15m
TW-BPT-0312-0500	35#	5/16	7.95	1/2	12.70	2.4	15m
TW-BPT-0375-0562	36#	3/8	9.53	9/16	14.29	2.4	15m
TW-BPT-0375-0625	73#	3/8	9.53	5/8	15.88	3.2	15m
TW-BPT-0500-0750	82#	1/2	12.70	3/4	19.05	3.2	15m
TW-BPT-1000-1375	92#	1	25.40	1 1/8	35.00	4.8	7.5m

Sizes and pack lengths can also be customized according to customer requirements.

Physical Properties

Item	Method	Value / Grade
Appearance	—	Semi-Transparent / Opaque (Clean Milky White)
Shore Hardness	ASTM D2240	65
Tensile Strength	ASTM D412	$\geq 7\text{MPa}$ ($\geq 1014\text{Psi}$)
Elongation at Break	ASTM D412	$\geq 400\%$
Specific Gravity	ASTM D792	0.9
Tear Strength	ASTM D624	$\geq 42\text{KN/m}$

Features of TW-BPT

- Far more durable than silicone tubing in peristaltic pumps (pump lifespan 1000+ hours)
- Resistant to CIP and SIP cleaning and sterilization
- Can be sterilized by γ -irradiation, ethylene oxide, and autoclaving
- Pyrogen-free, non-cytotoxic, non-hemolytic, and free of animal-derived components
- Maintains flexibility over a temperature range of -45°C to 135°C
- Excellent general chemical resistance, with superior resistance to acids, alkalis, and oxidation
- Smooth inner bore ensures excellent fluid flow

Validation Test Report

Item	Regulatory Standard	Test Content
Biocompatibility	USP<87>	Cytotoxicity Test
	USP<88>	Acute Systemic Toxicity & Intracutaneous Reactivity Test
	ISO10993-4	In Vitro Hemolysis Test
	ISO10993-5	In Vitro Cytotoxicity
	ISO10993-11	Acute Toxicity Test (Sodium Chloride Sesame Oil Extracts)
Extractables	BPOG	High-Temperature and Irradiation Sterilization 24-Hour Soak
Others	USP<85>	Bacterial Endotoxins
	USP<381>	Injectable Elastomeric Closures
	USP<661>	Physicochemical Properties of Plastics
	FDA 21 CFR 177.2600	Rubber Products (n-Hexane and Water Extracts)
	Chinese Pharmacopoeia (ChP)	5 Cycles of High-Temperature Sterilization Testing
	Chinese Pharmacopoeia (ChP)	Insoluble Particles
	Chinese Pharmacopoeia (ChP)	Microbial Limits
	Chinese Pharmacopoeia (ChP)	Sterility (Sterilized Products)

You can access the relevant documentation either through sales personnel or via the official website of Tri-Win.