



Food and Beverage Transfer



Designed to reduce the risk of particle entrapment and microscopic build-up during fluid transfer

In-house analysis of the inner surface of Tygon[®] SPT-3350 silicone tubing compared to other silicone tubing shows that it is up to three times smoother.

A smoother fluid path also helps to facilitate complete sanitation of a fluid transfer system. Even in repeat use applications, Tygon[®] SPT-3350 silicone tubing may prevent residue build-up, aiding in complete cleaning and sterilization. Additionally, the smooth inner surface of the Tygon[®] SPT-3350 silicone tubing improves fluid flow characteristics by reducing surface area.

Lower Extractable

Tygon[®] SPT-3350 silicone tubing is produced from a platinum curing process to meet the most demanding requirements of food and beverage sanitary standards. In-house extractability tests have shown that Tygon[®] SPT-3350 silicone tubing has a low extractable content. Lower extractable help to maintain the integrity of the transported food and beverage media.

Regulatory Compliance

Tygon[®] SPT-3350 tubing meets 3-A Sanitary Standard No. 18-01, FDA 21 CFR 175.300 and NSF 51 certification. Tygon[®] SPT-3350 silicone tubing has a Master File with the U.S. Food and Drug Administration.

Features and Benefits

- Ultra-smooth inner bore reduces potential for particle entrapment
- Minimal extractable help maintain fluid integrity
- Excellent fluid flow characteristics
- Complete inventory of standard sizes available, including metric sizes

Typical Applications

- Food and beverage dispensing

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Tygon® SPT-3350 silicone Standard Sizes

Part Number	ID	OD	Wall	Min. Bend Radius	Max. Working Pressure* 22°C (73°F)	Max. Working Pressure* 160°C (320°F)	Vacuum Rating at 22°C (73°F)	Vacuum Rating at 160°C (320°F)
TY0,79SP2,38	0,79 mm (1/32")	2,38 mm (3/32")	0,79 mm (1/32")	3,2 mm	1,51 bar	1,44 bar	760 mmHg	760 mmHg
TY1,0SP2,0	1,0 mm	2,0 mm	0,5 mm	-	-	-	-	-
TY1,0SP3,0	1,0 mm	3,0 mm	1,0 mm	-	-	-	-	-
TY1,59SP3,18	1,59 mm (1/16")	3,18 mm (1/8")	0,79 mm (1/32")	6,4 mm	0,96 bar	0,89 bar	760 mmHg	760 mmHg
TY1,59SP4,76	1,59 mm (1/16")	4,76 mm (3/16")	1,59 mm (1/16")	6,4 mm	1,51 bar	1,44 bar	760 mmHg	760 mmHg
TY2,0SP4,0	2,0 mm	4,0 mm	1,0 mm	-	-	-	-	-
TY2,38SP3,97	2,38 mm (3/32")	3,97 mm (5/32")	0,79 mm (1/32")	6,4 mm	0,75 bar	0,68 bar	760 mmHg	760 mmHg
TY2,38SP5,56	2,38 mm (3/32")	5,56 mm (7/32")	1,59 mm (1/16")	6,4 mm	1,24 bar	1,10 bar	760 mmHg	760 mmHg
TY3,0SP5,0	3,0 mm	5,0 mm	1,0 mm	-	-	-	-	-
TY3,0SP6,0	3,0 mm	6,0 mm	1,5 mm	-	-	-	-	-
TY3,0SP7,0	3,0 mm	7,0 mm	2,0 mm	-	-	-	-	-
TY3,18SP4,76	3,18 mm (1/8")	4,76 mm (3/16")	0,79 mm (1/32")	9,5 mm	0,62 bar	0,55 bar	381 mmHg	381 mmHg
TY3,18SP6,35	3,18 mm (1/8")	6,35 mm (1/4")	1,59 mm (1/16")	12,7 mm	0,96 bar	0,89 bar	760 mmHg	760 mmHg
TY3,97SP5,56	3,97 mm (5/32")	5,56 mm (7/32")	0,79 mm (1/32")	19,0 mm	0,48 bar	0,41 bar	254 mmHg	254 mmHg
TY4,0SP7,0	4,0 mm	7,0 mm	1,5 mm	-	-	-	-	-
TY4,0SP8,0	4,0 mm	8,0 mm	2,0 mm	-	-	-	-	-
TY4,76SP6,35	4,76 mm (3/16")	6,35 mm (1/4")	0,79 mm (1/32")	25,4 mm	0,48 bar	0,41 bar	127 mmHg	127 mmHg
TY4,76SP7,94	4,76 mm (3/16")	7,94 mm (5/16")	1,59 mm (1/16")	12,7 mm	0,75 bar	0,68 bar	635 mmHg	635 mmHg
TY4,76SP9,53	4,76 mm (3/16")	9,53 mm (3/8")	2,38 mm (3/32")	9,5 mm	0,96 bar	0,89 bar	760 mmHg	760 mmHg
TY4,76SP11,11	4,76 mm (3/16")	11,11 mm (7/16")	3,18 mm (1/8")	9,5 mm	1,24 bar	1,10 bar	760 mmHg	760 mmHg
TY5,0SP8,0	5,0 mm	8,0 mm	1,5 mm	-	-	-	-	-
TY6,0SP9,0	6,0 mm	9,0 mm	1,5 mm	-	-	-	-	-
TY6,0SP10,0	6,0 mm	10,0 mm	2,0 mm	-	-	-	-	-
TY6,0SP12,0	6,0 mm	12,0 mm	3,0 mm	-	-	-	-	-
TY6,35SP7,94	6,35 mm (1/4")	7,94 mm (5/16")	0,79 mm (1/32")	38,1 mm	0,34 bar	0,27 bar	25 mmHg	25 mmHg
TY6,35SP9,53	6,35 mm (1/4")	9,53 mm (3/8")	1,59 mm (1/16")	19,0 mm	0,62 bar	0,55 bar	38 mmHg	38 mmHg
TY6,35SP11,11	6,35 mm (1/4")	11,11 mm (7/16")	2,38 mm (3/32")	15,9 mm	0,82 bar	0,75 bar	760 mmHg	760 mmHg
TY6,35SP12,7	6,35 mm (1/4")	12,7 mm (1/2")	3,18 mm (1/8")	15,9 mm	0,96 bar	0,89 bar	760 mmHg	760 mmHg
TY7,0SP10,0	7,0 mm	10,0 mm	1,5 mm	-	-	-	-	-
TY7,94SP11,11	7,94 mm (5/16")	11,11 mm (7/16")	1,59 mm (1/16")	31,8 mm	0,48 bar	0,41 bar	127 mmHg	127 mmHg
TY7,94SP12,7	7,94 mm (5/16")	12,7 mm (1/2")	2,38 mm (3/32")	15,9 mm	0,68 bar	0,62 bar	508 mmHg	508 mmHg
TY8,0SP11,0	8,0 mm	11,0 mm	1,5 mm	-	-	-	-	-
TY8,0SP12,0	8,0 mm	12,0 mm	2,0 mm	-	-	-	-	-
TY8,0SP14,0	8,0 mm	14,0 mm	3,0 mm	-	-	-	-	-
TY9,53SP12,7	9,53 mm (3/8")	12,7 mm (1/2")	1,59 mm (1/16")	38,1 mm	0,62 bar	0,55 bar	127 mmHg	127 mmHg
TY9,53SP14,29	9,53 mm (3/8")	14,29 mm (9/16")	2,38 mm (3/32")	25,4 mm	0,82 bar	0,75 bar	381 mmHg	381 mmHg
TY9,53SP15,88	9,53 mm (3/8")	15,88 mm (5/8")	3,18 mm (1/8")	25,4 mm	0,82 bar	0,75 bar	760 mmHg	760 mmHg

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Part Number	ID	OD	Wall	Min. Bend Radius	Max. Working Pressure* 22°C (73°F)	Max. Working Pressure* 160°C (320°F)	Vacuum Rating at 22°C (73°F)	Vacuum Rating at 160°C (320°F)
TY10,0SP14,0	10,0 mm	14,0 mm	2,0 mm	-	-	-	-	-
TY11,11SP14,29	11,11 mm (7/16")	14,29 mm (9/16")	1,59 mm (1/16")	38,1 mm	0,27 bar	0,20 bar	50 mmHg	50 mmHg
TY11,11SP15,88	11,11 mm (7/16")	15,88 mm (5/8")	2,38 mm (3/32")	44,5 mm	0,55 bar	0,48 bar	254 mmHg	254 mmHg
TY12,0SP16,0	12,0 mm	16,0 mm	2,0 mm	-	-	-	-	-
TY12,7SP15,88	12,7 mm (1/2")	15,88 mm (5/8")	1,59 mm (1/16")	76,2 mm	0,34 bar	0,27 bar	25 mmHg	25 mmHg
TY12,7SP17,46	12,7 mm (1/2")	17,46 mm (11/16")	2,38 mm (3/32")	44,5 mm	0,48 bar	0,41 bar	127 mmHg	127 mmHg
TY12,7SP19,05	12,7 mm (1/2")	19,05 mm (3/4")	3,18 mm (1/8")	38,1 mm	0,62 bar	0,55 bar	381 mmHg	381 mmHg
TY15,0SP21,0	15,0 mm	21,0 mm	3,0 mm	-	-	-	-	-
TY15,88SP20,64	15,88 mm (5/8")	20,64 mm (13/16")	2,38 mm (3/32")	76,2 mm	0,41 bar	0,34 bar	127 mmHg	127 mmHg
TY15,88SP22,23	15,88 mm (5/8")	22,23 mm (7/8")	3,18 mm (1/8")	63,5 mm	0,48 bar	0,41 bar	254 mmHg	254 mmHg
TY18,0SP24,0	18,0 mm	24,0 mm	3,0 mm	-	-	-	-	-
TY19,05SP25,4	19,05 mm (3/4")	25,4 mm (1")	3,18 mm (1/8")	63,5 mm	0,48 bar	0,41 bar	25 mmHg	25 mmHg
TY20,0SP27,0	20,0 mm	27,0 mm	3,5 mm	-	-	-	-	-
TY25,4SP31,75	25,4 mm (1")	31,75 mm (1-1/4")	3,18 mm (1/8")	127 mm	0,34 bar	0,27 bar	0	0
TY31,75SP38,1	31,75 mm (1-1/4")	38,1 mm (1-1/2")	3,18 mm (1/8")	152,4 mm	0,34 bar	0,27 bar	0	0
TY38,1SP50,8	38,1 mm (1-1/2")	50,8 mm (2")	6,35 mm (1/4")	177,8 mm	0,41 bar	0,34 bar	25 mmHg	25 mmHg

*Working pressures are calculated at a 1:5 ratio relative to burst pressure using ASTM D1599

The values listed for working and burst pressures are derived from tests conducted under controlled laboratory conditions. Many factors will reduce the tubing's ability to withstand pressures, including temperature, chemical attack, stress, pulsation and the attachment to fittings. It is imperative that the user conduct tests simulating the conditions of the application prior to specifying the tubing for use.

Typical Physical Properties of Tygon[®] SPT-3350 silicone Tubing

Property	ASTM Method	Value of Rating
Durometer Hardness	D2240	50° Shore A, 15s
Color	-	Translucent
Tensile Strength	D412	10,0 MPa (1.450 psi)
Ultimate Elongation	D412	770,00%
Water Absorption, 24 hrs. @ 23°C	D570	0,11%
Tear Resistance	D624 Die B	35 kN/m
Specific Gravity	D792	1,14
Compression Set Constant Deflection at 70°C (158°F) for 22 hrs. at 175°C (347°F) for 22 hrs.	D395-03 Method B	7% 35%
Brittleness by Impact Temp	D746	-80°C (-112°C)
Maximum Recommended Operating Temp.	-	204°C (400°F)
Dielectric Strength	D149	19 kV/mm (480 v(mil))
Tensile Modulus at 200% Elongation	D412	1,9 MPa (280 psi)

Sterilization Methods

Autoclavable	Steam 30 min at 1 bar (15psi) 121°C (250°F)
Gas	Ethylene Oxide
Radiation	up to 5.0 Mrad

Unless otherwise noted, all tests were conducted at room temperature 23°C (73°F). Values shown were determined on 1,905 mm (0.075") thick extruded strip or 1,905 mm (0.075") thick molded ASTM plaques or molded ASTM durometer buttons. Size of tubing tested is 1/8" ID x 1/4" OD.

TYGON[®] SPT-3350 SILICONE TUBING IS NOT INTENDED FOR USE AS AN IMPLANT MATERIAL

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