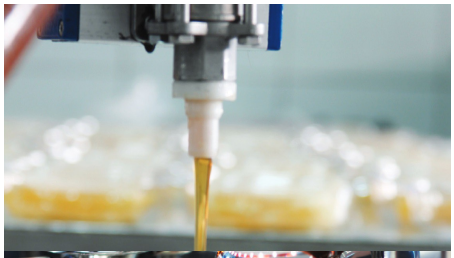
OPTUBUS
Fluid Transfer Components

Tygon® SPT-3370 IB

Food & Beverage under Pressure

Transfer under Pressure



Designed to Maintain Fluid Purity Under Pressure

Braid reinforced for increased pressure resistance, Tygon® SPT-3370 IB tubing is frequently specified in the most demanding applications requiring sanitary transfer of fluids. Its smooth inner surface reduces the risk of particle entrapment and inhibits excessive residue and microscopic bacterial buildup; cleaning and sterilization cycles may become more effective as a result. Additionally, an improvement in fluid flow characteristics may occur from the reduced surface area and lowered absorption of fluids to the wall. Tygon® SPT-3370 IB tubing can easily withstand repeated SIP and CIP cleaning and sterilization cycles, making it ideal for repeat-use applications. Its flexibility, durability, and chemical and temperature resistance provide a unique combination of characteristics required in many food and beverage applications.

Lower Extractable

Tygon® SPT-3370 IB 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-3370 IB tubing has a low extractable content. Lower extractable help to maintain the integrity of the transported food and beverage media. Tygon® SPT-3370 IB tubing meets 3-A Sanitary Standard No. 18-01, FDA 21 CFR 175.300 and NSF 51 certification. Tygon® SPT-3370 IB silicone tubing has a Master File with the U.S. Food and Drug Administration.

Regulatory Compliance

- 3-A Sanitary Standard No. 18-01
- FDA 21 CFR 175.300
- NSF 51 certification

Features and Benefits

- Consistently smooth inner surface limits particle entrapment
- Platinum cured to minimize extractable
- Tough braid reinforcement permits use under elevated working pressures
- Withstands repeated CIP and SIP cleaning and sterilization
- Custom color striping available

Typical Applications

- Beverage dispensing
- Food and dairy processing
- Bottle filling
- Hot fill lines
- Food handling

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Tygon® SPT-3370 IB 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)
TY4,76SP11,25IB	4,76 mm (3/16")	11,25 mm	3,25 mm	6,4 mm	11,7 bar	8,6 bar	760 mmHg	760 mmHg
TY6,35SP13,08IB	6,35 mm (1/4")	13,08 mm	3,37 mm	12,7 mm	10,3 bar	7,2 bar	760 mmHg	760 mmHg
TY9,53SP17,46IB	9,53 mm (3/8")	17,46 mm (11/16")	3,97 mm (5/32")	19,0 mm	8,9 bar	6,5 bar	760 mmHg	760 mmHg
TY12,7P31,75IB	12,7 mm (1/2")	21,51 mm	4,41 mm	31,8 mm	8,6 bar	6,2 bar	760 mmHg	760 mmHg
TY4,76SP11,25IB	15,88 mm (5/8")	24,89 mm	4,51 mm	38,1 mm	7,5 bar	5,5 bar	760 mmHg	760 mmHg
TY19,05SP29,21IB	19,05 mm (3/4")	29,21 mm	5,08 mm	63,5 mm	6,8 bar	5,1 bar	760 mmHg	760 mmHg
TY25,4SP35,31IB	25,4 mm (1")	35,31 mm	4,95 mm	88,9 mm	4,8 bar	3,4 bar	381 mmHg	254 mmHg
TY31,75SP41,55IB	31,75 mm (1-1/4")	41,55 mm	9,80 mm	146,1 mm	3,7 bar	2,7 bar	254 mmHg	127 mmHg
TY38,1SP48,26IB	38,1 mm (1-1/2")	48,26 mm	5,08 mm	171,5 mm	2,7 bar	2,0 bar	127 mmHg	0 mmHg
TY50,8SP61,77IB	50,8 mm (2")	61,77 mm	5,49 mm	222,3 mm	1,3 bar	0,8 bar	0 mmHg	0 mmHg

*Working pressures are calculated at a 1:4 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-3370 IB

Property	ASTM Method	Value of Rating
Durometer Hardness	D2240	70° Shore A, 15s
Color	-	Translucent
Tensile Strength	D412	8,3 MPa (1.200 psi)
Ultimate Elongation	D412	500,00%
Water Absorption, 24 hrs. @ 23°C	D570	0,11%
Tear Resistance	D624 Die B	44 kN/m
Specific Gravity	D792	1,18
Compression Set Constant Deflection at 70°C (158°F) for 22 hrs. at 175°C (347°F) for 22 hrs.	D395-03 Method B	 3% 10%
Brittleness by Impact Temp	D746	-80°C (-112°C)
Maximum Recommended Operating Temp.	-	160°C (320°F)
Dielectric Strength	D149	24 kV/mm (600 v/mil)
Tensile Modulus at 200% Elongation	D412	4,5 MPa (650 psi)
Tensile Set	D412	25,00%

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-3370 IB TUBING IS NOT INTENDED FOR USE AS AN IMPLANT MATERIAL

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