



TYGON® 2475

Plasticizer Free Thermoplastic Tubing

Plasticizer free for lower extractables

Tygon® 2475 plasticizer free tubing is formulated without the addition of softening agents or oils, reducing potential contamination of sensitive fluids in biopharmaceutical applications. The absence of plasticizers allows the tubing to stand up to aggressive acids, bases and solvents that would react with or extract plasticizer from a standard PVC tube. The crystal clear construction of Tygon 2475 tubing allows visual inspection of fluid path to ensure consistency of flow. Tygon 2475 has lower gas permeation than standard silicone tubing, protecting sensitive fluids from moisture loss and oxidation.

Low wetting and ultra smooth

The low surface energy of Tygon® 2475 reduces wetting of aqueous substances, allowing higher recovery of fluids. Its superior surface smoothness reduces the potential for microbial buildup, especially critical in bioprocess applications. In addition, Tygon 2475 has very low absorption of aqueous substances minimizing the risk of fluid alteration in single use or repeat use applications.

Fully Characterized and Biocompatible

Tygon® 2475 comes complete with biocompatible, physiochemical and extractable testing which can be found in the Validation Guide Summary on the BOSIN Bioprocess Solutions website.

Features/Benefits

- Exceptionally low gas permeation compared to silicone
- Smooth inner surface inhibits particulate entrapment
- Highly resistant to aggressive cleaners and sanitizers
- Free from added plasticizers or oils
- Meets USP Class VI criteria

Typical Applications

- Aseptic filling and dispensing systems
- Diagnostic equipment
- Nuclear equipment
- Laboratory analytical instrumentation
- Cosmetic production
- Cell and tissue culture transport

Sterilization Methods

Gas (Ethylene Oxide)	Yes
Radiation	up to 45 kGy

Typical Physical Properties of TYGON® 2475

Property	ASTM Method	Value or Rating
Color	—	Clear
Durometer Hardness Shore A, 15 Sec	D2240-97	72
Maximum Recommended Operating Temperature, °F (°C)	—	125 (52)
Brittleness by Temperature, °F (°C)	D746-95	-108 (-78)
Low Temperature Flexibility, °F (°C)	D380-87	-94 (-70)
Water Absorption, % 24 hrs. @ 23°C	D570-95	<0.01

Unless otherwise noted, all tests were conducted at room temperature (73°F). Values shown were determined on 0.075" thick extruded strip or 0.075" thick molded ASTM plaques or molded ASTM durometer buttons.

Selection Guide of TYGON® 2475 Tubing

Part number	I.D.	O.D.	Wall thickness	Length	Minimum bend radius	Maximum working pressure	Vacuum rating of mercury at	
	In. (mm)	In. (mm)	In. (mm)	Ft. (m)	In. (mm)	73°F *psi (bar)	In. at 73° F	mm at 23° C
ACG00003	1/16 (1.6)	3/16 (4.8)	1/16 (1.6)	50 (15.2)	1/8 (3)	85 (5.8)	29.9	760
ACG00007	1/8 (3.2)	1/4 (6.4)	1/16 (1.6)	50 (15.2)	1/4 (6)	50 (3.4)	29.9	760
ACG00012	3/16 (4.8)	5/16 (7.9)	1/16 (1.6)	50 (15.2)	1/2 (13)	40 (2.7)	29.9	760
ACG00017	1/4 (6.4)	3/8 (9.5)	1/16 (1.6)	50 (15.2)	3/4 (19)	30 (2.06)	29.9	760
ACG00022	5/16 (7.9)	7/16 (11.1)	1/16 (1.6)	50 (15.2)	1-3/8 (35)	18 (1.2)	29.9	760
ACG00027	3/8 (9.5)	1/2 (12.7)	1/16 (1.6)	50 (15.2)	1-3/4 (44)	20 (1.4)	29.9	760
ACG00038	1/2 (12.7)	3/4 (19.0)	1/8 (3.2)	50 (15.2)	1-1/2 (38)	29 (2)	29.9	760
ACG00046	5/8 (15.9)	7/8 (22.2)	1/8 (3.2)	50 (15.2)	2-1/4 (57)	25 (1.7)	29.9	760
ACG00053	3/4 (19.0)	1 (25.4)	1/8 (3.2)	50 (15.2)	3-1/4 (83)	21 (1.4)	29.9	760
ACG42064	1 (25.4)	1-3/8 (34.9)	3/16 (4.8)	25 (7.6)	3 (82)	20 (1.4)	29.9	760

*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.

Tygon® is a trademark of BOSIN Performance Plastics Corp

BOSIN Performance Plastics' manufacturing facilities have the ability to create a variety of sizes or coil lengths for your particular application needs. Contact us for a quote to meet your specific requirements.

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WARRANTY: For a period of 12 months from the date of first sale, BOSIN Performance Plastics warrants this product to be free of defects in materials and workmanship. Our only obligation will be to replace any portion proving defective, or at our option, to refund the purchase price thereof.

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