TYGON®
Trusted Performance

Tygon® E-1000 Tubing



PUMPABLE TUBING FOR LABORATORY DISPENSING

Soft and flexible, Tygon® E-1000 tubing delivers superior performance in a formulation that contains non-DEHP [Bis (2-ethylhexyl) phthalate] plasticizers. Tygon® E-1000 non-DEHP tubing has been tested rigorously to meet stringent standards for low temperature and corrosive chemical resistance.

Ideal Selection for Complex Set-Ups

Tygon® E-1000 tubing is an excellent solution to applications requiring complicated set-ups with sharp radius curves and multiple directional changes. Tygon® E-1000 tubing resists twisting and collapse, which are common problems when using other tubing products. Tygon® E-1000 tubing stays flexible at temperatures as low as -67°F (-55°C).

The Preferred Tubing in Low-Torque Peristaltic Pumps

The extremely low durometer (40) of Tygon® E-1000 tubing provides minimal resistance to compression. This feature is ideal when using low-torque or batterydriven peristaltic pumps. Tygon® E-1000 tubing provides an excellent alternative to silicone tubing where corrosive chemicals are used.

Tygon® E-1000 tubing will typically outlast silicone tubing in peristaltic pump applications by a margin of 2 to 1.

Features and Benefits

- Soft and flexible
- Low-temperature resistant -67°F (-55°C)
- Resistant to corrosive chemicals
- Low durometer for use in low-torque pump applications

Typical Applications

- Peristaltic pumps
- Vent and drain lines

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Tygon® Lab E-1000

Tygon® E-1000 Tubing

Part Number	ID		OD		Wall Thickness		Min. Bend Radius		Max. Working Pressure		Vacuum Rating	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	73°F (psi)*	23°C (bar)*	73°F (inHg)	23°C (mmHg)
ADK00003	1/16	1.59	3/16	4.76	1/16	1.59	1/8	3.18	26	1.8	29.9	760
ADK00007	1/8	3.18	1/4	6.35	1/16	1.59	3/8	9.53	16	1.1	29.9	760
ADK00012	3/16	4.76	5/16	7.94	1/16	1.59	5/8	15.88	10	0.7	15.0	381
ADK00017	1/4	6.35	3/8	9.53	1/16	1.59	1	25.40	8	0.6	7.0	178
ADK00019	1/4	6.35	1/2	12.70	1/8	3.18	5/8	15.88	14	0.9	29.9	760
ADK00022	5/16	7.94	7/16	11.11	1/16	1.59	1-3/8	34.93	7	0.5	5.0	127
ADK00027	3/8	9.53	1/2	12.70	1/16	1.59	1-3/4	44.45	7	0.5	3.0	76
ADK00029	3/8	9.53	5/8	15.88	1/8	3.18	1-1/8	28.58	11	0.8	15.0	381
ADK00036	1/2	12.70	5/8	15.88	1/16	1.59	2-7/8	73.03	6	0.4	2.0	51
ADK00038	1/2	12.70	3/4	19.05	1/8	3.18	1-3/4	44.45	8	0.6	7.0	178

* Working pressures are calculated at a 1:5 ratio relative to burst pressure using ASTM D1599.
Additional sizes available upon request.

Relative Chemical Resistance Properties*

Acids			Bases			Salts	Alcohols	Ketones
Conc.	Med.	Weak	Conc.	Med.	Weak			
F	E	E	E	E	E	E	F	U

E = Excellent F = Fair U = Unsatisfactory
* All tests conducted at room temperature.

Typical Physical Properties

Property	ASTM Method	Value or Rating
Durometer Hardness (Shore A), 15 sec	D2240	40
Color	—	Clear
Opacity	—	Translucent
Tensile Strength, psi (MPa)	D412	1100 (7.6)
Ultimate Elongation, %	D412	435
Tear Resistance, lb-f/in (kN/m)	D1004	104 (18.2)
Specific Gravity	D792	1.10
Water Absorption, % at 73°F (23°C) for 24 hrs	D570	0.29
Compression Set Constant Deflection, % at 158°F (70°C) for 22 hrs	D395	55
Maximum Recommended Operating Temp., °F (°C)	—	125 (52)
Brittleness by Impact Temp., °F (°C)	D746	-67 (-55)
Tensile Stress, psi (MPa) @ 100% Elongation	D412	286 (2.0)

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.

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.

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NOTE: The data and details given in this document are correct and up to date. This document is intended to provide information about the product and possible applications. This document is not the product specification and does not provide specific features, nor does it guarantee product performance in specific applications. Saint-Gobain cannot anticipate or control the conditions of the field and for this reason strongly recommends that practical tests are conducted to ensure that the product meets the requirements of a specific application.

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