OPTUBUS
Fluid Transfer Components

Tygon® E-1000

Extra **S**oft **P**eristaltic Pump **T**ubing

Low-torque or Battery-driven Peristaltic pumps

Pump-able Tubing for Food & Beverage 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 battery-driven peristaltic pumps. Tygon® E-1000 tubing provides an excellent alternative to silicone tubing where corrosive chemicals are used. Tygon® E-l000 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 -55°C (-67°F)
- Resistant to corrosive chemicals
- Low durometer for use in low-torque pump applications
- Meets the requirements of applicable FDA Food Additive Regulations*

Typical Applications

- Peristaltic pumps
- Vent and drain lines

* Use restrictions and limitations may apply.

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Tygon® E-1000 Standard Sizes

Part Number	ID	OD	Wall	Min. Bend Radius	Max. Working Pressure* 22°C (73°F)	Vacuum Rating at 22°C (73°F)
TY1,59US4,76	1,59 mm (1/16")	4,76 mm (3/16")	1,59 mm (1/16")	3,2 mm	1,8 bar	760 mmHg
TY3,18US6,35	3,18 mm (1/8")	6,35 mm (1/4")	1,59 mm (1/16")	9,5 mm	1,1 bar	760 mmHg
TY4,76US7,94	4,76 mm (3/16")	7,94 mm (5/16")	1,59 mm (1/16")	15,9 mm	0,7 bar	381 mmHg
TY6,35US9,53	6,35 mm (1/4")	9,53 mm (3/8")	1,59 mm (1/16")	25,4 mm	0,6 bar	178 mmHg
TY6,35US12,7	6,35 mm (1/4")	12,7 mm (1/2")	3,18 mm (1/8")	15,9 mm	0,9 bar	760 mmHg
TY7,94US11,11	7,94 mm (5/16")	11,11 mm (7/16")	1,59 mm (1/16")	34,9 mm	0,5 bar	127 mmHg
TY9,53US12,7	9,53 mm (3/8")	12,7 mm (1/2")	1,59 mm (1/16")	44,4 mm	0,5 bar	76 mmHg
TY9,53US15,88	9,53 mm (3/8")	15,88 mm (5/8")	3,18 mm (1/8")	28,5 mm	0,8 bar	381 mmHg
TY12,7US15,88	12,7 mm (1/2")	15,88 mm (5/8")	1,59 mm (1/16")	73,0 mm	0,4 bar	51 mmHg
TY12,7US19,05	12,7 mm (1/2")	19,05 mm (3/4")	3,18 mm (1/8")	44,4 mm	0,6 bar	178 mmHg

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

Relative Chemical Resistance Properties* Tygon® E-1000

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 of Tygon® E-1000 Tubing

Property	ASTM Method	Value of Rating
Durometer Hardness	D2240	40° Shore A, 15s
Color	-	Clear
Opacity	-	Translucent
Tensile Strength	D412	7,6 MPa (1100 psi)
Ultimate Elongation	D412	435,00%
Tear Resistance	D1004	18,2 kN/m
Specific Gravity	D792	1.10
Water Absorption, % 24 hrs. @ 23°C	D570	0.29
Compression Set Constant Deflection at 70°C for 22 hrs.	D395	55,00%
Maximum Recommended Operating Temperature	-	52 °C (125°F)
Brittleness by Impact Temperature	D746	-55°C (-67°F)
Tensile Stress @ 100% Elongation	D412	2.0 MPa

Regulation Compliance

FDA Approved for Food Contact	Yes
Contains REACH SVHC	No
NSF 51 Standard	Pending
Sterilization Methods	Gas
USP Class VI	No

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