OPTUBUS
Fluid Transfer Components

Optiflon PFA

High **P**urity **T**ubing

Superior **C**hemical **R**esistant **T**ubing

Chemical Resistance, mechanical strength at high temperature

Optiflon PFA Tubing provides excellent chemical resistance, high mechanical strength and lower permeability at high temperatures than FEP Tubing for example. It is non-flammable and clear and the first choice in many applications where high level of purity is needed. It has extreme low fraction of metallic and organic extractable substances.

Transfer of high purity liquids in many industries

Optiflon PFA Tubing is widely used in the semi-conductor industry, laboratories, medical equipment, in chemical and pharmaceutical industries. Anywhere high purity grades is necessary for extremely critical applications.

Optiflon PFA-FG with food grade approvals

For the food and beverage processing industries we offer our Optiflon PFA-FG Tubing. The materials comply with FDA 21 CFR 177.1550, USP class VI and MERCOSUR GMC-56-92.
The products are tested and approved by US NSF/ANSI 51, European EU10/2011 and Chinese GB4806

Features and Benefits

- excellent chemical resistance
- higher mechanical strength compared to FEP
- high stress cracking resistance at higher temperatures
- Temperature -200°C to +260°C
- non-flammable UL 94 VO
- clear-transparent
- High level of purity

Typical Applications

- Transfer of high purity liquids
- Semi-Conductor industries
- Medical Equipment
- Chemical Industries
- Pharmaceutical Industries
- Analytical Sensors
- Food and Beverage

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Optiflon PFA Standard Sizes

Part Number	ID	OD	Wall	Min. Bend Radius	Max. Working Pressure* 22°C (73°F)	Theo. Burst Pressure* 22°C (73°F)
PF1,59FA3,18	1,59 mm (1/16")	3,18 mm (1/8")	0,79 mm (1/32")	12,7 mm	21,0 bar	84,0 bar
PF3,0FA4,0	3,0 mm	4,0 mm	0,5 mm	32,0 mm	9,7 bar	39,0 bar
PF3,18FA4,76	3,18 mm (1/8")	4,76 mm (3/16")	0,79 mm (1/32")	28,1 mm	13,7 bar	54,8 bar
PF3,18FA6,35	3,18 mm (1/8")	6,35 mm (1/4")	1,59 mm (1/16")	12,7 mm	21,3 bar	85,2 bar
PF3,97FA6,35	3,97 mm (5/32")	6,35 mm (1/4")	1,19 mm (3/64")	33,7 mm	15,6 bar	62,6 bar
PF4,0FA6,0	4,0 mm	6,0 mm	1,0 mm	36,0 mm	13,5 bar	54 bar
PF4,76FA6,35	4,76 mm (3/16")	6,35 mm (1/4")	0,79 mm (1/32")	25,4 mm	9,8 bar	39,4 bar
PF4,76FA7,94	4,76 mm (3/16")	7,94 mm (5/16")	1,59 mm (1/16")	38,1 mm	16,6 bar	66,7 bar
PF6,0FA8,0	6,0 mm	8,0 mm	1,0 mm	64,0 mm	9,7 bar	39,0 bar
PF6,0FA9,0	6,0 mm	9,0 mm	1,5 mm	54,0 mm	13,5 bar	54,0 bar
PF6,35FA7,94	6,35 mm (1/4")	7,94 mm (5/16")	0,79 mm (1/32")	44,4 mm	7,8 bar	31,4 bar
PF6,35FA9,53	6,35 mm (1/4")	9,53 mm (3/8")	1,59 mm (1/16")	25,4 mm	13,6 bar	54,6 bar
PF7,94FA9,53	7,94 mm (5/16")	9,53 mm (3/8")	0,79 mm (1/32")	63,5 mm	20,3 bar	81,3 bar
PF8,0FA10,0	8,0 mm	10,0 mm	1,0 mm	100,0 mm	7,7 bar	31,0 bar
PF9,0FA12,0	9,0 mm	12,0 mm	1,5 mm	96,0 mm	9,7 bar	39,0 bar
PF9,53FA12,7	9,53 mm (3/8")	12,7 mm (1/2")	1,59 mm (1/16")	100,8 mm	9,9 bar	39,7 bar
PF10,0FA12,0	10,0 mm	12,0 mm	1,0 mm	144,0 mm	7,0 bar	28,0 bar
PF11,11FA12,7	11,11 mm (7/16")	12,7 mm (1/2")	0,79 mm (1/32")	101,6 mm	5,0 bar	20,1 bar
PF12,7FA15,88	12,7 mm (1/2")	15,88 mm (5/8")	1,59 mm (1/16")	76,2 mm	7,8 bar	31,1 bar
PF15,88FA19,05	15,88 mm (5/8")	19,05 mm (3/4")	1,59 mm (1/16")	226,6 mm	7,1 bar	28,4 bar
PF22,23FA25,4	22,23 mm (7/8")	25,4 mm (1")	1,59 mm (1/16")	403,2 mm	5,1 bar	20,4 bar

*Working pressures are calculated at a 1:4 ratio relative to burst pressure using

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 Optiflon PFA Tubing

Property	ASTM Method	Value
Durometer Hardness	D2240	D63 - D65
Color	-	natural
Maximum Recommended Operating Temperature	-	+260°C (+500°F)
Minimum Recommended Operating Temperature	-	-200°C (-328°F)
Melting Temperature	-	+302 to +306°C (+575 to +582°F)

Property	ASTM Method	Value
Ultimate Elongation	D638	260 to 300 %
Specific Density	D792	2.12 to 2.17 g/cm^3
Water Absorption	D570	0.004 %
Dielectric Strength	D149	78.8 kV/mm
Flammability	-	not flammable
Thermal Conductivity	C177	0.2 W/k*m
Tensile Strength	D638	28.0 to 31.0 MPa (4060 to 4500 psi)