



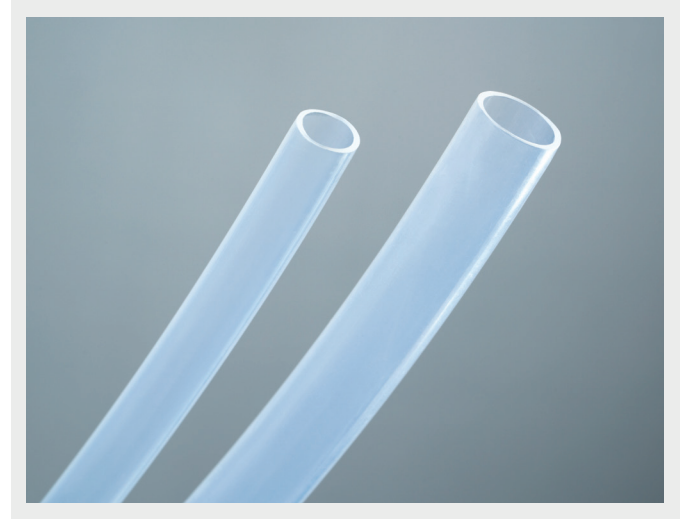
## OVERVIEW

PFA is well recognized for its ability to maintain its integrity in extreme temperatures even when exposed to caustic chemicals. PFA also comes in high purity versions that can be extruded into tubing forms and SEMI F-57 certified. High Purity PFA tubing is used in critical fluid transport tubing applications that demand a very low level of extractables. This fluoropolymer possesses the ability to withstand temperature environments of up to 260 °C/500 °F and can be extruded in convoluted tubing forms that provide a highly flexible conduit.

The qualities of PFA include excellent lubricity, clarity, flexibility, and chemical resistance. This versatility has led to PFA being a popular material selection in the semiconductor, chemical, energy, aerospace, automotive, pharmaceutical, fiber optics, and medical industries.

*Fillers available with PFA extrusions:*

- Carbon



*We can laser mark PFA and HP PFA tubing.*



CHEMICAL RESISTANCE



FLEXURAL MODULUS



GAS PERMEABILITY

## APPLICATIONS

- Protection for optical fiber
- Analytical and fluid management tubing
- Wire and cable insulation
- Medical componentry

## PRODUCTS

- Tubing
- Heat shrink
- Monofilament
- Drawn fiber
- Multi-Lumens
- Custom profiles
- Custom insulated wire
- Co-extrusions
- Convoluted tubing (AS 81914)
- Coated optical fiber







## KEY PROPERTIES







- Excellent clarity and flexibility
- Maximum working temperature 500 °F / 260 °C
- Combines attributes of PTFE and FEP
- Chemically resistant to all common solvents
- Available in high purity grades
- Low gas permeability
- Ultra-low levels of ionic extractables
- ETO, e-beam, and autoclave sterilizable
- Flame resistant: UL 94 V-0




# PFA








## PFA - Perfluoroalkoxy

The information presented in this publication is believed to be accurate and is not intended to constitute a specification. Property characteristics are dramatically impacted by geometry and processing method, thus properties of extruded parts may vary. In some instances, data may not be available for publication and will be notated as "na" where applicable. These tables are meant to serve as a general guideline only. Users should evaluate the material to determine suitability for their own particular application.

PHYSICAL		ASTM	PFA
	Density (g/cc)	D792	2.12 - 2.17
	Water Absorption (%)	D570	< 0.03
	Standard Percent Crystallinity (%)		48 - 70
	Refraction Index		1.350
	Radiation Resistance (MRad)		1 - 10
	Oxygen Index (%)	D2863	> 95

MECHANICAL		ASTM	PFA
	Hardness, Shore D	D2240	55 - 60
	Ultimate Tensile Strength (MPa)	D638	25 - 28
	Elongation at Break (%)	D638	250 - 420
	Modulus of Elasticity (GPa)	D638	0.48
	Flexural Modulus (GPa)	D790	0.50 - 0.70
	Coefficient of Friction		0.04 - 0.20

ELECTRICAL		ASTM	PFA
	Volume Resistivity (Ω-cm)	D257	1.0 × 10 <sup>18</sup>
	Dielectric Constant 1 MHz	D150	1.9 - 2.1
	Dielectric Strength (V/mil)	D149	2030

THERMAL		ASTM	PFA
	Thermal Conductivity (W/m-K)	C117	0.15 - 0.25
	Maximum Service Temp, Air (°C)		260
	Minimum Service Temp, Air (°C)		-200
	Melt Temp (°C)		300 - 315
	Glass Temp (°C)		90
	Decomposition Temp (°C)	E1131	475
	Coefficient of Thermal Expansion, linear 20° (µm/m-°C)	D696	120 - 140

### - OVER 50 YEARS OF INDUSTRY SOLUTIONS -

Zeus delivers precision polymer solutions that transform businesses, markets, and lives. We have dedicated ourselves to building partnerships, products, and services for the benefit of our customers.

Headquartered in Orangeburg, South Carolina, Zeus employs approximately 1,300 people and operates multiple facilities around the world.