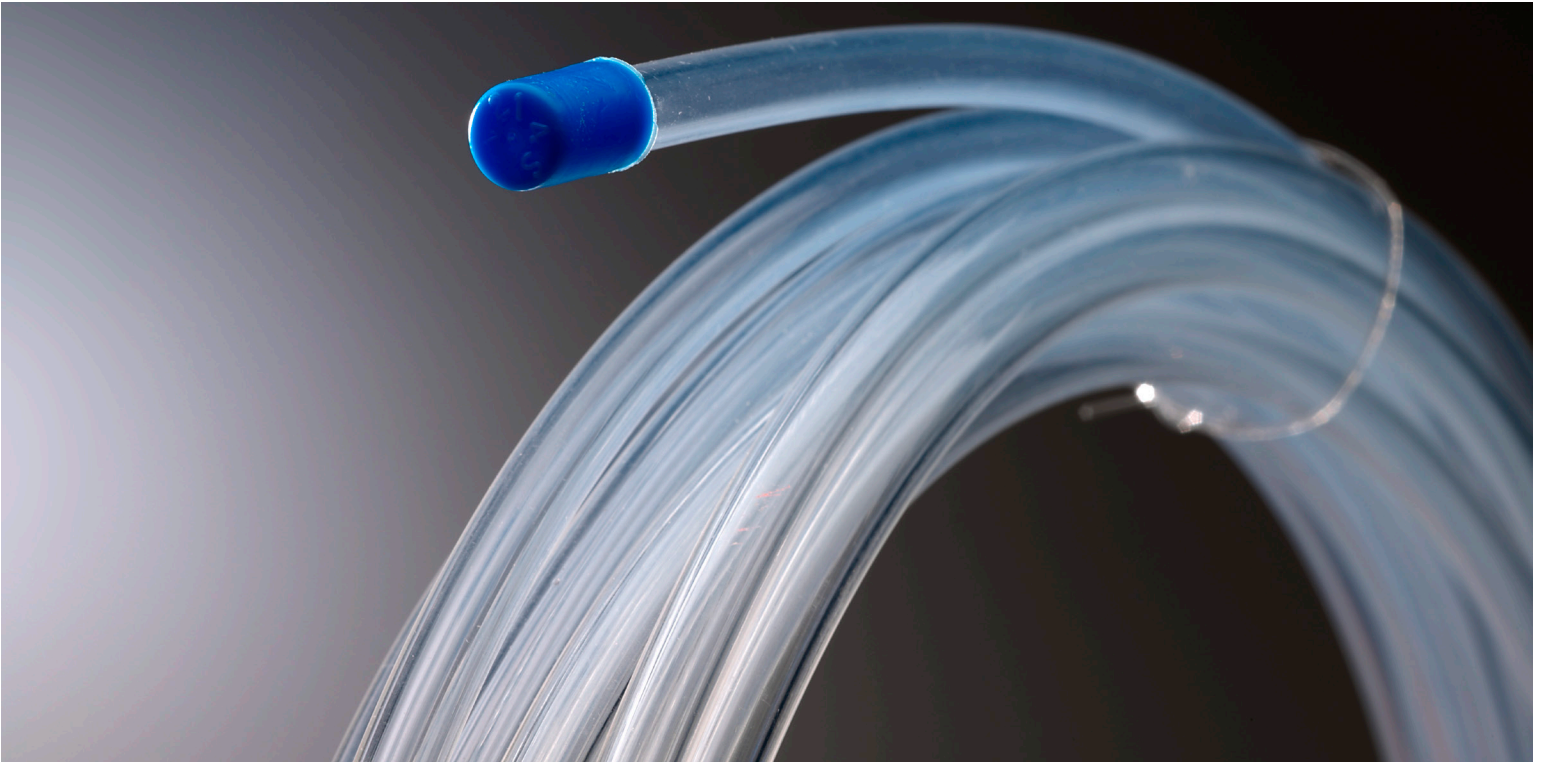




ADVANCED POLYMER SCIENCE FOR NEW TECHNOLOGIES



### Featured Polymer: High Purity **PFA** Tubing

**PFA tubing is the material of choice in the semiconductor and critical fluid industries when additional flexibility, a higher continuous service temperature, and an extremely low level of chemical extractables are required.**

Zeus High Purity PFA(HP PFA) exceeds the stringent requirements of the SEMI F-57 specification. The unique molecular structure of HP PFA reduces chemical extractables, protects against ionic contamination, and is non-reactive with virtually all chemicals. HP PFA also has a maximum working temperature of 500°F (260°C), low gas permeability, and is flame resistant.

In the semiconductor and pharmaceutical industries, HP PFA tubing is used for fluid handling applications requiring an extremely low level of chemical extractables. The product reduces metallic contamination and is designed to provide longer service life in the challenging semiconductor clean room environment. HP PFA is also used in applications that require a high continuous service temperature.

Capitalizing on more than 40 years of polymer experience, Zeus continues to provide superior products with the highest standards of quality and control. Zeus is capable of manufacturing standard HP PFA tubing in sizes ranging from .047 to .075 wall and 5/32 ID to 1.10. The product is also available with special packaging options, such as pre-cut coiled lengths and custom laser marking.

## Key Properties:

- Combines attributes of PTFE and FEP
- Maximum working temperature 500°F (260°C)
- Excellent surface smoothness
- Low gas permeability
- Chemically resistant to all common solvents
- Maintains mechanical strength at high temperatures
- Superior high purity properties

## Additional Properties:

- SEMI F57 certified material
- Protects against ionic contamination
- Ultra-low metallic and organic extractables
- Flame resistant: UL 94 VO
- Special packaging options
- Thermal stability

## Special Packaging Options:

- Pre-cut coiled lengths
- Double poly bagged
- End capped
- Clean room packaged
- Private labeled
- Custom laser marked

PHYSICAL PROPERTIES	TEST METHOD	PFA
CONTINUOUS SERVICE TEMP RANGE	-	-320°F TO 500°F
HARDNESS, SHORE D	ASTM D2240	55 - 64
TENSILE STRENGTH, ULTIMATE	ASTM D638	3630 - 4100 PSI
TENSILE STRENGTH, YIELD	ASTM D638	2180 - 4100 PSI
ELONGATION AT BREAK	ASTM D638	300%
TENSILE MODULUS	ASTM D638	10 - 90 KSI
FLEXURAL MODULUS	ASTM D790	80 - 95 KSI
IZOD IMPACT, NOTCHED	ASTM D256	>1.2
COEFFICIENT OF FRICTION	ASTM D1894	0.21

### PFA HP Tubing - Standard Sizes

*ID (INCHES)	OD (INCHES)	WALL (INCHES)	50' COIL PART NUMBER <sup>+</sup>	100' COIL PART NUMBER <sup>+</sup>	500' SPOOL PART NUMBER <sup>+</sup>	BEND RADIUS** (INCHES)	BURST PRESSURE** (PSI @ 72°F)
5/32	1/4	0.047	92164	90266	72769	0.750	1600
1/4	3/8	0.063	90268	90273	90276	0.750	1450
3/8	1/2	0.063	89635	89637	53902	1.500	1050
5/8	3/4	0.063	90278	56500	92590	8.000	700
7/8	1	0.063	90807	89626	72831	15.000	525
1.10	1 - 1/4	0.075	91953	93515	90810	16.000	500

### PFA HP Tubing - Metric Sizes

*ID (MM)	OD (MM)	WALL (MM)	50' COIL PART NUMBER <sup>+</sup>	100' COIL PART NUMBER <sup>+</sup>	BEND RADIUS** (MM)	BURST PRESSURE** (PSI @ 72°F)
2	4	1	89656	89639	12.7	2200
4	6	1	72656	72657	19.05	1475
6	8	1	79672	89671	25.4	1050
8	10	1	91954	91956	50.8	825

\* **Please Note:** Actual performance may vary. The properties and data on this sheet are provided as a general reference.

## ► Advancing Your Ideas

Your ideas have the potential to transform the world. The right partners will help you make it happen. Talk to Zeus about how polymer science can advance your ideas. We welcome the opportunity to collaborate with you.



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