

## Zeus PTFE Tubing

Category : Polymer , Thermoplastic , Fluoropolymer , PTFE , Polytetrafluoroethylene (PTFE), Extruded

### Material Notes:

Zeus offers a wide range of standard size products and precision custom PTFE Tubing. PTFE Tubing has become the gold standard in industries requiring the ultimate in lubricity, high temperature use, chemical resistance, biocompatibility, and precision extruded tolerances. Very Lubricious - Lowest coefficient of friction of any polymer Working temperature range 500° F (260° C) to -454° F (-270° C) Chemically Resistant (all common solvents, acids and bases) Chemically Inert Low extractable Excellent Dielectric Insulation

Properties Zeus capabilities include: Tubing Special profiles Monofilament Multilumen Ultra-tight tolerances Fillers: glass, radio-opaque, pigments Etching available for bondability

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Zeus-PTFE-Tubing.php](http://www.lookpolymers.com/polymer_Zeus-PTFE-Tubing.php)

Physical Properties	Metric	English	Comments
Density	2.16 - 2.22 g/cc	0.0780 - 0.0802 lb/in <sup>3</sup>	ASTM D792
Water Absorption	0.00 %	0.00 %	ASTM D257
Crystallinity	>= 90 %	>= 90 %	

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	50 - 65	50 - 65	ASTM D2240
Tensile Strength, Ultimate	20.0 - 35.0 MPa	2900 - 5080 psi	ASTM D638
Elongation at Break	200 - 550 %	200 - 550 %	ASTM D638
Modulus of Elasticity	0.390 - 0.600 GPa	56.6 - 87.0 ksi	ASTM D638
Flexural Modulus	0.275 - 0.700 GPa	39.9 - 102 ksi	ASTM D790
Coefficient of Friction	0.020 - 0.20	0.020 - 0.20	

Thermal Properties	Metric	English	Comments
CTE, linear	126 - 180 $\mu\text{m}/\text{m}\cdot\text{°C}$	70.0 - 100 $\mu\text{in}/\text{in}\cdot\text{°F}$	ASTM D696
	@Temperature 20.0 °C	@Temperature 68.0 °F	
Thermal Conductivity	0.167 - 0.300 W/m-K	1.16 - 2.08 BTU-in/hr-ft <sup>2</sup> -°F	ASTM C177
Melting Point	327 - 342 °C	621 - 648 °F	
Maximum Service Temperature, Air	260 °C	500 °F	Continuous Service
Minimum Service Temperature, Air	-270 °C	-454 °F	

Glass Transition Temp, Tg Thermal Properties	127 °C Metric	261 °F English	Comments
Decomposition Temperature	400 - 500 °C	752 - 932 °F	ASTM E1131
Oxygen Index	>= 95 %	>= 95 %	ASTM D2863

Optical Properties	Metric	English	Comments
Refractive Index	1.35	1.35	

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+14 - 1.00e+19 ohm-cm	1.00e+14 - 1.00e+19 ohm-cm	ASTM D257
Dielectric Constant	2.1 @Frequency 1.00e+6 Hz	2.1 @Frequency 1.00e+6 Hz	ASTM D150
Dielectric Strength	7.44 - 24.0 kV/mm	189 - 610 kV/in	ASTM D149

Descriptive Properties	Value	Comments
Radiation Resistance (MRad)	1	

## Contact Songhan Plastic Technology Co.,Ltd.

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