

**Molded PFTE (Teflon®) Material Properties**

Physical Properties		Test Method ASTM
Specific Gravity	2.1 – 2.3	D792
Tensile Strength (73° F, psi)	1,500 – 5,000	D638
Tensile Modulus of Elasticity (73° F)	50,000 – 90,000	D638
Elongation (73° F)	75 – 350	D638
Flexural Strength (73° F)	No Break	D790
Flexural Modulus of Elasticity (73° F)	90,000 – 110,000	D790
Shear Strength (73° F)	--	D790
Compressive Strength (10% Def., psi)	--	D695
Compressive Modulus of Elasticity (73° F, psi)	95,000 – 115,000	D695

Mechanical Properties		Test Method ASTM
Coefficient of Friction Dynamic (Dry vs. Steel)	0.04 – 0.10	--
Hardness (Rockwell, 73°F)	R10 – 20	D785
Hardness (Durometer, 73°F)	D55 – 70	D676
Tensile Impact (73° F, ft lb./in ²)	30 – 200	D1822
Coefficient Linear Thermal Exp. (in/in/°F)	5.5-7.5×10 ⁻⁵	D696
Deformation Under Load (122 °F, 2000 psi, %)	3 – 7	D621

Temperature Properties		Test Method ASTM
Deflection Temperature at 264 psi (°F)	100 – 140	D648
Deflection Temperature at 66 psi (°F)	--	D648
Melting Point (°F)	621±9	D789
Cont. Service Temp in Air, Max (°F)	500	--
Dielectric Strength Short Time (Volts/mil)	500 – 650	D149
Volume Resistivity (OHM-CM)	>10 ¹⁷	D257
Dielectric Constant 60 Hz	2.0 – 2.1	D150
Dielectric Constant 10 ³ Hz	>2.0 – 2.1	D150
Dielectric Constant 10 ⁵ Hz	>2.0 – 2.1	D150

Environmental Properties		Test Method ASTM
Water Absorption Immersion at 24 Hours (%)	0.00 – 0.05	D570
Water Absorption Immersion Saturation (%)	--	D570
Acid Weak (73° F)	Acceptable	--
Acid Strong (73° F)	Acceptable	--
Alkali Weak (73° F)	Acceptable	--
Alkali Strong (73° F)	Acceptable	--
Hydrocarbons, Aromatic (73 °F)	Acceptable	--
Hydrocarbons, Aliphatic (73 °F)	Acceptable	--
Ketones (73 °F)	Acceptable	--
Ethers (73 °F)	Acceptable	--
Esters (73 °F)	Acceptable	--
Alcohols (73 °F)	Acceptable	--
Inorganic Salt Solutions (73 °F)	Acceptable	--
Continuous Sunlight (73 °F)	Acceptable	--

Note: Property data shown are typical average values and will vary based on specific production lots and by size and product configuration. They should be used only as a guide to primary selection for the application of a given material and never for purchase specifications. All values shown are based on bone dry specimens.