

Material Properties

Carbon Fiber Filled PTFE

Material code: 1006

It exhibits improved creep and wear resistance. Increased thermal conductivity and low coefficient of friction ensure low wear rate even under dry running conditions. It is suitable for gaskets, valve seals, packings, bearings, and piston rings.

Physical Properties	ASTM Method	Typical Values
Specific Gravity	D792	2.02 gr/cm ³
Water Absorption (24 hrs. @ 74°F)	D570	0.02 %
Color	N/A	Black
Mechanical Properties		
Tensile Strength	D638	1600 psi
Elongation	D638	
• At Break		50%
Flexural Strength	D790	1800 psi
Flexural Modulus	D790	180,000 psi
Compressive Strength	D695	1300 psi
Compressive Modulus	D695	90,000 psi
Hardness	Shore D	65
Tribological Properties		
Coefficient of friction	D3702	
• Static		0.19
• Dynamic		0.13
Wear rate (PV: 20,000 psi-fpm)	D3702	0.8 uin/min
Thermal Properties		
Coefficient of Linear Thermal Expansion (78-400°F)	D696	47 10 ⁻⁶ °F
Heat Deflection Temperature (F/C @ 264 psi)	D648	150°F
Glass Transition Temperature (T _g)	D3418	266°F
Melting Point		621°F
Continuous Service Temperature (Max @ no load)		500°F
Electrical Properties		
Volume Resistivity (ohm-cm) @ 50% RH	D257	10 ⁹ ohm-cm
Dielectric Strength	D149	KV/mm
Dielectric Constant	D150	Hz, 200°F

Note: Property values should be interpreted as typical rather than minimum value. All technical information and recommendations are presented in good faith, and based upon laboratory and real-world tests believe to be reliable and practical. However, K.C. Seals, Inc. cannot guarantee the accuracy or completeness of this information, and it is the customers' responsibility to determine product suitability to any given application.

