

Material Properties

Carbon-Graphite Fiber Filled PTFE

Material code: 1020

Its ability to run under dry or wet conditions along with its low wear rate makes it an ideal high temperature bearing material. It also offers high load bearing capability, relative to other fluoropolymers, for many general-purpose industrial applications.

Physical Properties	ASTM Method	Typical Values
Specific Gravity	D792	2.06 gr/cm ³
Water Absorption (24 hrs. @ 74°F)	D570	0.05 %
Color	N/A	Black
Mechanical Properties		
Tensile Strength	D1708	2300 psi
Elongation	D1708	
• At Break		105%
Flexural Strength	D790	2300 psi
Flexural Modulus	D790	160,000 psi
Compressive Strength	D695	2500 psi
Compressive Modulus	D695	100,000 psi
Hardness	Shore D	66
Tribological Properties		
Coefficient of friction	D3702	
• Static		0.27
• Dynamic		0.25
Wear rate (PV: 20,000 psi-fpm)	D3702	0.75 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 ¹⁶ ohm-cm
Dielectric Strength	D149	KV/mm
Dielectric Constant	D150	2.5 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.

