

Material Properties

Bronze Filled PTFE

Material code: 1023

It provides better creep resistance than most of the PTFE alloys. It possesses high compressive strength and good wear and sliding properties. Most common applications include piston rings (compressors), bushes, bearings, and wear pads for high compression sliding applications. Certain chemicals may easily attack bronze

Physical Properties	ASTM Method	Typical Values
Specific Gravity	D792	3.88 gr/cm ³
Water Absorption (24 hrs. @ 74°F)	D570	0.02 %
Color	N/A	Dark Brown
Mechanical Properties		
Tensile Strength	D1708	2000 psi
Elongation	D1708	
• At Break		100%
Flexural Strength	D790	1750 psi
Flexural Modulus	D790	200,000 psi
Compressive Strength	D695	1700 psi
Compressive Modulus	D695	118,000 psi
Hardness	Shore D	65
Tribological Properties		
Coefficient of friction	D3702	
• Static		0.74
• Dynamic		0.70
Wear rate (PV: 20,000 psi-fpm)	D3702	0.7 uin/min
Thermal Properties		
Coefficient of Linear Thermal Expansion (78-400°F)	D696	53 10 ⁻⁶ °F
Heat Deflection Temperature (F/C @ 264 psi)	D648	175°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 ¹⁵ 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 believed 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.