

# Material Properties

## Moly filled Polyimide

### Material code: 6011

It provides maximum wear and friction resistance in vacuum or dry environments, where graphite actually becomes abrasive. It is primarily designed for seals, bearings, bushings, gears, and other wear surfaces in such demanding and moisture-free applications. Suitable for intermittent use in excess of 700°F.

Physical Properties	ASTM Method	Typical Values
Specific Gravity	D792	1.60 gr/cm <sup>3</sup>
Water Absorption (24 hrs. @ 74°F)	D570	0.50 %
Color	N/A	Black
<b>Mechanical Properties</b>		
Tensile Strength	D1708	7500 psi
Elongation	D1708	
• At Break		3.0%
Flexural Strength	D790	11,000 psi
Flexural Modulus	D790	475,000 psi
Compressive Strength	D695	18,000 psi
Compressive Modulus	D695	350,000 psi
Impact Strength (Izod, notched)	D256	0.4 ft-lb/in
Hardness	Shore D	76
<b>Tribological Properties</b>		
Coefficient of friction	D3702	
• Static		0.34
• Dynamic		0.22
Wear rate (PV: 20,000 psi-fpm)	D3702	1.4 uin/min
<b>Thermal Properties</b>		
Coefficient of Linear Thermal Expansion (78-400°F)	D696	29 10 <sup>-6</sup> °F
Heat Deflection Temperature (F/C @ 264 psi)	D648	680°F
Glass Transition Temperature (T <sub>g</sub> )	D3418	635°F
Melting Point		N/A
Continuous Service Temperature (Max @ no load)		600°F
<b>Electrical Properties</b>		
Volume Resistivity (ohm-cm) @ 50% RH	D257	10 <sup>13</sup> 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.

