

# Material Properties

## PTFE Filled PEEK

### Material code: 5040

It offers excellent strength, chemical resistance, and impact resistance along with low coefficient of friction and excellent wear properties

Physical Properties	ASTM Method	Typical Values
Specific Gravity	D792	1.41 gr/cm <sup>3</sup>
Water Absorption (24 hrs. @ 74°F)	D570	0.15 %
Color	N/A	Tan
<b>Mechanical Properties</b>		
Tensile Strength	D1708	9,500 psi
Elongation	D1708	
• At Break		7%
Flexural Strength	D790	17,000 psi
Flexural Modulus	D790	480,000 psi
Compressive Strength	D695	13,000 psi
Compressive Modulus	D695	425,000 psi
Impact Strength (Izod, notched)	D256	0.8 ft-lb/in
Hardness	Shore D	85
<b>Tribological Properties</b>		
Coefficient of friction	D3702	
• Static		0.26
• Dynamic		0.16
Wear rate (PV: 20,000 psi-fpm)	D3702	4.00 uin/min
<b>Thermal Properties</b>		
Coefficient of Linear Thermal Expansion (78-400°F)	D696	45 10 <sup>-6</sup> °F
Heat Deflection Temperature (F/C @ 264 psi)	D648	300°F
Glass Transition Temperature (T <sub>g</sub> )	D3418	289°F
Melting Point		644°F
Continuous Service Temperature (Max @ no load)		480°F
<b>Electrical Properties</b>		
Volume Resistivity (ohm-cm) @ 50% RH	D257	10 <sup>16</sup> ohm-cm
Dielectric Strength	D149	KV/mm
Dielectric Constant	D150	3 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.

