



Typical Material Properties

30% Carbon Fiber Reinforced PEEK (polyetheretherketone)

Physical Properties	ASTM Method	Typical Values
Specific Gravity	D792	1.41 gr/cm ³
Water Absorbtion (24 hrs. @73.4° F)	D570	.15%
Color	N/A	Black
Mechanical Properties		
Tensile Strength	D1708/D638	19,000 psi
Tensile Elongation	D1708/D638	4%
Flexural Strength	D790	25,200 psi
Flexural Modulus	D790	1.3 10 ⁶ psi
Compressive Strength	D695	25,000 psi
Compressive Modulus	D695	550,000 psi
Impact Strength (Izod, notched)	D256	
Hardness	Shore D	90
Tribological Properties		
Coefficient of Friction		
Static	D3702	
Dynamic	D3702	.24
Wear Rate (PV: 20,000 psi-fpm)	D3702	3.3 μin/min

Thermal Properties

Coefficient of Linear Thermal Expansion (78-400° F)	D696	25 10 - 6/° F
Heat Deflection Temperature (@264 psi)	D648	450° F
Glass Transition Temperature (Tg)	D3418	
Continuous Service Temperature (Max @ no load)		480° F
Melting Point		644° F

Electrical Properties

Volume Resistivity	D257	10 16 ohm-cm
Dielectric Strength	D149	KV/mm
Delectric Constant	D150	50Hz, 200° C

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, Professional Plastics, Inc. cannot guarantee the accuracy or completeness of this information, and it is the customers responsibility to determine product suitability to any given application.

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