

## TECHNICAL PROPERTIES OF ZL™ 1500 (PEEK)

Property	Units	Test Method ASTM	Value
<b>MECHANICAL PROPERTIES</b>			
Specific Gravity	gm/cm <sup>3</sup>	D-792	1.31
Tensile Strength	73 °F psi	D-638	14,000
Tensile Modulus	73 °F psi	D-638	500,000
Elongation, Break	73 °F %	D-638	4.9
Flexural Strength	73 °F psi	D-790	24,700
Flexural Modulus	73 °F psi	D-790	530,000
Compressive Strength	73 °F psi	D-695	17,100
Compressive Modulus	psi	D-695	500,000
Impact Strength, Notched	73 °F ft-lbs/in	D-256	1.6
Hardness, Rockwell	R	D-785	R126 (M99)
Hardness, Durometer, Shore D	D	2240	-
Shear Strength	psi	D-732	7,600
Coefficient of Friction, against steel	-	-	0.40
<b>THERMAL PROPERTIES</b>			
Deflection Temperature	66 psi 264 psi °F	D-648	- 320
Maximum Temperature - Long Term	°F	-	482
Maximum Temperature - Short Term	°F	-	-
Melting Point	°F	-	633
Coefficient of Linear Thermal Expansion	in/in/°F	D-696	2.6 x 10 <sup>-5</sup>
Thermal Conductivity	Btu-in/hr-ft <sup>2</sup> -°F	C-177	1.75
<b>ELECTRICAL PROPERTIES</b>			
Dielectric Strength	V/mil	D-149	480
Dielectric Constant	1 kHz -	D-150	3.30
Dissipation Factor	1 kHz	D-150	0.003
Flammability		UL 94	V-0
Volume Resistivity	73 °F Ω.cm	D-257	-
<b>WATER ABSORPTION RATES</b>			
Water Absorption at 73 °F	24 hours Saturation %	D-570	0.5 0.5

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