

TECHNICAL PROPERTIES OF ZL™ 1500 (PEEK)

Property		Units	Test Method ASTM	Value
MECHANICAL PROPERTIES				
Specific Gravity		gm/cm ³	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
THERMAL PROPERTIES				
Deflection Temperature	66 psi	°F	D-648	-
	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 ⁻⁵
Thermal Conductivity		Btu-in/hr-ft ² -°F	C-177	1.75
ELECTRICAL PROPERTIES				
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	-
WATER ABSORPTION RATES				
Water Absorption at 73 °F	24 hours	%	D-570	0.5
	Saturation	%	D-570	0.5

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