

# ZL<sup>®</sup> 1400 Black Properties



	Test Method ASTM	Units	ZL <sup>™</sup> 1400 PET
<b>Mechanical Properties</b>			
Specific Gravity	D-792	gm/cm <sup>3</sup>	1.38
Tensile Strength, 73° F	D-638	psi	12,330
Tensile Modulus, 73° F	D-638	psi	400,000
Elongation, Break, 73° F	D-638	%	70
Flexural Strength, 73° F	D-790	psi	15,000
Flexural Modulus, 73° F	D-790	psi	400,000
Compressive Strength, 73° F	D-695	psi	15,000
Compressive Modulus	D-695	psi	420,000
Impact Strength, Notched, 73° F	D-256	ft-lbs/in	0.7
Hardness, Rockwell	D-785	R	R117 (M94)
Hardness, Durometer, Shore D	2240	D	D83-D84
Shear Strength	D-732	psi	8,000
Coefficient of Friction against steel	-	-	0.15
<b>Thermal Properties</b>			
Deflection Temperature - 66 psi	D-648	°F	-
Deflection Temperature - 264 psi	D-648	°F	175
Maximum Temperature - Long Term	-	°F	230
Maximum Temperature - Short Term	-	°F	-
Melting Point		°F	490
Coefficient of Linear Thermal Expansion	D-696	in/in/°F	3.9x10 <sup>-5</sup>
Thermal Conductivity	C-177	Btu-in/hr-ft <sup>2</sup> -°F	2.0
<b>Electric Properties</b>			
Dielectric Strength	D-149	V/mil	400
Dielectric Constant, 1kHz	D-150	-	3.4
Dissipation Factor, 1 kHz	D-150		0.002
Flammability	UL 94		HB
Volume Resistivity, 73° F	D-257	ohm-cm	-
<b>Water Absorption Rates</b>			
Water Absorption, 24 hrs. 73° F	D-570	%	0.10
Water Absorption, Saturation, 73° F	D-570	%	0.9