

TECHNICAL PROPERTIES OF ZL™ 250 (Extruded Nylon 6/6, Natural)

Property		Units	Test Method ASTM	Value
MECHANICAL PROPERTIES				
Specific Gravity		gm/cm ³	D-792	1.14
Tensile Strength	73 °F	psi	D-638	12,000
Tensile Modulus	73 °F	psi	D-638	420,000
Elongation, Break	73 °F	%	D-638	60
Flexural Strength	73 °F	psi	D-790	15,000
Flexural Modulus	73 °F	psi	D-790	410,000
Compressive Strength	73 °F	psi	D-695	12,500
Compressive Modulus		psi	D-695	420,000
Impact Strength, Notched	73 °F	ft-lbs/in	D-256	0.6 - 0.9
Hardness, Rockwell		R	D-785	R121
Hardness, Durometer, Shore D		D	2240	D80
Shear Strength		psi	D-732	10,000
Coefficient of Friction, against steel		-	-	0.25
THERMAL PROPERTIES				
Deflection Temperature	66 psi	°F	D-648	455
	264 psi	°F	D-648	194
Maximum Temperature - Long Term		°F	-	220
Maximum Temperature - Short Term		°F	-	-
Melting Point		°F		500
Coefficient of Linear Thermal Expansion		in/in/°F	D-696	4 x 10 ⁻⁵
Thermal Conductivity		Btu-in/hr-ft ² -°F	C-177	1.7
ELECTRICAL PROPERTIES				
Dielectric Strength		V/mil	D-149	600
Dielectric Constant	1 kHz	-	D-150	3.9
Dissipation Factor	1 kHz		D-150	0.02
Flammability			UL 94	V-2
Volume Resistivity	73 °F	Ω.cm	D-257	10 ¹⁵
WATER ABSORPTION RATES				
Water Absorption at 73 °F	24 hours	%	D-570	1.2
	Saturation	%	D-570	7.0

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