



Technical Properties of ZL®1100 MO (Cast Nylon 6 MoS2)

	Test Method ASTM	Units	ZL™ 1100 MO Cast Nylon 6 MoS2
Mechanical Properties			
Specific Gravity	D-792	gm/cm ³	1.15-1.17
Tensile Strength, 73° F	D-638	psi	11,000-14,000
Tensile Modulus, 73° F	D-638	psi	350,000-450,000
Elongation, Break, 73° F	D-638	%	20-40
Flexural Strength, 73° F	D-790	psi	12,500-14,500
Flexural Modulus, 73° F	D-790	psi	350,000-450,000
Compressive Strength, 73° F	D-695	psi	14,000
Compressive Modulus	D-695	psi	400,000
Impact Strength, Notched, 73° F	D-256	ft-lbs/in	0.6-0.9
Hardness, Rockwell	D-785	R	R115-R120
Hardness, Durometer, Shore D	2240	D	D85
Shear Strength	D-732	psi	10,000-11,000
Coefficient of Friction against steel	-	-	0.22
Thermal Properties			
Deflection Temperature - 66 psi	D-648	°F	370
Deflection Temperature - 264 psi	D-648	°F	200
Maximum Temperature - Long Term	-	°F	200
Maximum Temperature - Short Term	-	°F	300
Melting Point		°F	420
Coefficient of Lineral Thermal Expansion	D-696	in/in/ °F	5.0x10 ⁻⁵
Thermal Conductivity	C-177	Btu-in/hr-ft2-°F	1.7
Electric Properties			
Dielectric Strength	D-149	V/mil	400
Dielectric Constant, 1kHz	D-150	-	3.7
Dissipation Factor, 1 kHz	D-150		-
Flammability	UL 94		HB
Volume Resistivity, 73° F	D-257	ohm-cm	10 ¹⁵
Water Absorption Rates			
Water Absorption, 24 hrs. 73° F	D-570	%	0.6-1.2
Water Absorption, Saturation, 73° F	D-570	%	5.0-6.0