



ADVANCED POLYMER TECHNOLOGIES

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NYLON 6/6 RESIN

PROPERTY	NOMINAL VALUES	TEST METHOD
Physical		
Density	1.15 g/cc	ASTM D792
Water Absorption (24 hour immersion)	0.3 %	ASTM D570
Moisture Absorption at Equilibrium (Water Vapor Regained)	0.9 %	-
Water Absorption at Saturation (Immersion)	7 %	ASTM D570
Outgassing – Total Mass Loss	2.4 %	-
Collected Volatile Condensable Material	0 %	-
Mechanical		
Hardness, Rockwell M	85	ASTM D785
Hardness, Rockwell R	115	ASTM D785
Hardness, Shore D	80	ASTM D2240
Tensile Strength, Ultimate	11500 psi	ASTM D638
Elongation at Break	50 %	ASTM D638
Tensile Modulus	425 ksi	ASTM D638
Flexural Modulus	450 ksi	ASTM D790
Flexural Yield Strength	15000 psi	ASTM D790
Compressive Yield Strength (10% Deflection)	12500 psi	ASTM D695
Compressive Modulus	420 ksi	ASTM D695
Shear Strength	10000 psi	ASTM D732
Coefficient of Friction (Dynamic; Dry vs Steel)	0.25	PTM 55007
K (wear) Factor	80, 10 ⁻¹⁰ in ³ -min/lb-ft-hr	PTM 55007
Izod Impact, Notched	0.6 ft-lb/in	ASTM D256A
Thermal		
CTE, linear 68°F	55 µin/in-°F	ASTM E831 (TMA)
Thermal Conductivity	1.7 BTU-in/hr-ft ² -°F	
Melting Point	500 °F	ASTM D3418
Maximum Service Temperature, Air (Continuous Service Without Load)	210 °F	-
Deflection Temperature at 1.8 MPa (264 psi)	200 °F	ASTM D648
Flammability	V-2	UL 94
Electrical		
Surface Resistivity per Square	1e+013 ohm	EOS/ESD S11.11
Dielectric Constant (1 MHz _z)	3.6	ASTM D150
Dielectric Strength (Short Term)	400 V/mil	ASTM D149
Dissipation Factor (1 MHz _z)	0.02	ASTM D150

*Typical values only. Actual properties of individual batches will vary within specification limits.