

Typical Properties of Nylon 6/6

	ASTM Test Method	Value
Mechanical Properties		
Specific Gravity	D792	1.14 gm/cm ³
Tensile strength 73°F	D638	12,000 psi
Tensile Modulus 73°F	D638	420,000 psi
Elongation, Break	D638	60.00%
Flexural Strength	D790	15,000 psi
Flexural Modulus	D790	410,000 psi
Compressive Strength	D695	12,500 psi
Compressive Modulus	D695	420,000 psi
Impact Strength, Notched	D256	0.6 - 0.9 ft-lbs/in
Hardness, Rockwell	D785	R121
Hardness, Durometer	2240	D80
Shear Strength	D732	10,000 psi
Coefficient of Friction, agaist steel	-	0.25
Thermal Properties		
Deflection Temperature 66 psi	D648	455°F
Deflection Temperature 264 psi	D648	194°F
Maximum Temperature - Long Term		220°F
Melting Point	---	500°F
Coefficient of Linear Thermal Expansion	D696	4 x 10 ⁻⁵ in/in/°F
Thermal Conductivity	C177	1.7 Btu-in/hr-ft ² -°F
Electrical Properties		
Dielectric Strength	D149	600 V/mil
Dielectric Constant 1 kHz	D150	3.90
Dissipation Factor 1 kHz	D150	0.020
Flammability	UL 94	V-2
Volume Resistivity 73°F	D257	10 ¹⁵ Ω.cm
Water Absorption Rates		
Water Absorption at 73°F 24 hours	D570	1.2%
Water Absorption at 73°F Saturation	D570	7.0%
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