



Nylons

TYPICAL PROPERTIES of EXTRUDED NYLONS

ASTM or UL test	Property	Nylon 6/6 Unfilled	Nylatron GS Moly-Filled 6/6	Nylon 6/6 30% Glass
PHYSICAL				
D792	Density (lb/in ³) (g/cm ³)	0.042 1.15	0.042 1.16	0.049 1.35
D570	Water Absorption, 24 hrs (%) Saturation (%)	0.3 7.0	0.3 7.0	0.7 5.4
MECHANICAL				
D638	Tensile Strength (psi)	11,500	12,500	27,000
D638	Tensile Modulus (psi)	425,000	480,000	1,400,000
D638	Tensile Elongation at Break (%)	50	25	3
D790	Flexural Strength (psi)	15,000	17,000	39,000
D790	Flexural Modulus (psi)	450,000	460,000	1,200,000
D695	Compressive Strength (psi)	12,500	16,000	-
D695	Compressive Modulus (psi)	420,000	420,000	-
D785	Hardness, Rockwell R	M85 / R115	M85 / R115	M101
D256	IZOD Notched Impact (ft-lb/in)	0.6	0.5	2.1
THERMAL				
D696	Coefficient of Linear Thermal Expansion (x 10 ⁻⁵ in./in./°F)	5.5	4.0	1.2
D648	Heat Deflection Temp (°F / °C) at 264 psi	200 / 93	200 / 93	482 / 250
D3418	Melting Temperature (°F / °C)	500 / 260	500 / 260	491 / 255
-	Max Operating Temp (°F / °C)	210 / 99	220 / 104	230 / 110
C177	Thermal Conductivity (BTU-in/ft ² -hr-°F) (x 10 ⁻⁴ cal/cm-sec-°C)	1.7 5.9	1.7 5.9	1.7 5.9
UL94	Flammability Rating	V-2	V-2	HB
ELECTRICAL				
D149	Dielectric Strength (V/mil) short time, 1/8" thick	400	350	530
D150	Dielectric Constant at 60 Hz	3.6	-	3.5
D150	Dissipation Factor at 60 Hz	0.02	-	0.02
D257	Volume Resistivity (ohm-cm) at 73°F, 50% RH	> 10 ¹³	> 10 ¹³	10 ¹⁵

NOTE: The information contained herein are typical values intended for reference and comparison purposes only. They should NOT be used as a basis for design specifications or quality control. Contact us for manufacturers' complete material property datasheets.
All values at 73°F (23°C) unless otherwise noted.