

TYPICAL PROPERTIES of CAST NYLONS

ASTM or UL test	Property	Nylon 6 MC907,901 Unfilled	Nyloil Oil- Filled	Nylatron GSM Moly- Filled	Nylatron GSM Blue Moly & Oil	Nylatron NSM Solid-Lube
PHYSICAL						
D792	Density (lb/in ³) (g/cm ³)	0.042 1.15	0.042 1.16	0.042 1.16	0.042 1.15	0.042 1.15
D570	Water Absorption, 24 hrs (%) Saturation (%)	0.3 7.0	0.5 2.5	0.3 7.0	0.22 -	0.25 7.0
MECHANICAL						
D638	Tensile Strength (psi)	12,000	10,000	10,500	10,000	11,000
D638	Tensile Modulus (psi)	400,000	425,000	400,000	500,000	410,000
D638	Tensile Elongation at Break (%)	20	50	30	35	20
D790	Flexural Strength (psi)	16,000	15,000	16,000	15,000	16,000
D790	Flexural Modulus (psi)	500,000	425,000	400,000	425,000	400,000
D695	Compressive Strength (psi)	15,000	13,000	14,000	13,000	14,000
D695	Compressive Modulus (psi)	400,000	325,000	400,000	425,000	400,000
D785	Hardness, Rockwell R	R115	R110	R110	R117	R110
D256	IZOD Notched Impact (ft-lb/in)	0.4	1.6	0.5	0.9	0.5
THERMAL						
D696	Coefficient of Linear Thermal Expansion (x 10 ⁻⁵ in./in./°F)	3.5	3.5	3.5	5.9	5.0
D648	Heat Deflection Temp (°F / °C) at 264 psi	200 / 93	350 / 177	200 / 93	-	200 / 93
D3418	Melting Temperature (°F / °C)	420 / 215	450 / 232	420 / 215	420 / 215	420 / 215
-	Max Operating Temp (°F / °C)	200 / 93	230 / 110	200 / 93	200 / 93	200 / 93
C177	Thermal Conductivity (BTU-in/ft ² -hr-°F) (x 10 ⁻⁴ cal/cm-sec-°C)	-	-	-	-	-
UL94	Flammability Rating	HB	-	HB	-	HB
ELECTRICAL						
D149	Dielectric Strength (V/mil) short time, 1/8" thick	500	550	400	-	400
D150	Dielectric Constant at 60 Hz	3.7	3.7	3.7	-	-
D150	Dissipation Factor at 60 Hz	-	-	-	-	-
D257	Volume Resistivity (ohm-cm) at 73°F, 50% RH	> 10 ¹³	-	> 10 ¹³	> 10 ¹³	> 10 ¹³

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.