

DATA SHEET			
NYLATRON® GSM BLUE NYLON - CAST OIL & MoS₂ FILLED TYPE 6			
Property	Units	Test Method	Typical Average Values
Mechanical			
Specific Gravity, 73° F	---	ASTM D792	1.15
Tensile Strength, 73° F	psi	ASTM D638	10,000
Tensile Modulus of Elasticity, 73° F	psi	ASTM D638	500,000
Tensile Elongation (at break), 73° F	%	ASTM D638	30
Flexural Strength, 73° F	psi	ASTM D790	15,000
Flexural Modulus of Elasticity, 73° F	psi	ASTM D790	500,000
Shear Strength, 73° F	psi	ASTM D732	---
Compressive Strength, 10% Deformation, 73° F	psi	ASTM D695	13,000
Compressive Modulus of Elasticity, 73° F	psi	ASTM D695	425,000
Hardness, Rockwell, Scale as noted, 73° F	---	ASTM D785	M80 (R117)
Hardness, Durometer, Shore "D" Scale, 73° F	---	ASTM D2240	---
Izod Impact (notched), 73° F	ft.lb./in.	ASTM D256 Type "A"	0.9
Coefficient of Friction (Dry vs. Steel) Dynamic	---	PTM 55007	0.18
Limiting PV (with 4:1 safety factor applied)	ft.lbs.in. ² min.	PTM 55007	5,500
Wear Factor "k" x 10 ⁻¹⁰	in. ³ -min/ft. lbs. hr.	PTM 55010	65
Thermal			
Coefficient of Linear Thermal Expansion (-40°F to 300°F)	in./in./°F	ASTM E-831 (TMA)	5.5 x 10 ⁻⁵
Heat Deflection Temperature 264 psi	°F	ASTM D648	200
Tg-Glass Transition (amorphous)	°F	ASTM D3418	N/A
Melting Point (crystalline) peak	°F	ASTM D3418	420
Continuous Service Temperature in Air (Max.)(1)	°F	---	200
Thermal Conductivity	BTU in./(hr.ft. ² °F)	---	---

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Property	Units	Test Method	Typical Average Values
Electrical			
Dielectric Strength, Short Term	Volts/mil	ASTM D149	---
Surface Resistivity	ohm/square	EOS/ESD S11.11	>10 ¹³
Dielectric Constant, 10 ⁶ Hz	---	ASTM D150	---
Dissipation Factor, 10 ⁶ Hz	---	ASTM D150	---
Flammability @ 3.1 mm (1/8 in.) (3)	---	UL94	HB
Miscellaneous			
Water Absorption Immersion, 24 Hours	% by wt.	ASTM D570(2)	0.3
Water Absorption Immersion, Saturation	% by wt.	ASTM D570(2)	6.0

- (1) Data represents Quadrant's estimated maximum long-term service temperature based on practical field experience.
- (2) Specimens: 1/8" thick x 2" diameter or square.
- (3) **Estimated rating based on available data.** The UL 94 Test is a laboratory test and does not relate to actual fire hazard. Contact Quadrant for specific UL "Yellow Card" recognition number.