

Product Data Sheet

Nylatron® GSM Nylon



Nylatron GSM cast nylon contains finely divided particles of molybdenum disulfide to enhance its load bearing capabilities while maintaining the impact resistance inherent to nylon. It is the most commonly used grade for gears, sheaves, sprockets and custom parts. It is gray-black in color.

Property	Method	Unit	Value
Mechanical			
Specific Gravity, 73°F	D792		1.16
Tensile Strength, 73°F	D638	psi	11,000
Tensile Modulus of Elasticity, 73°F	D638	psi	400,000
Elongation, 73°F	D638	%	30.0
Flexural Strength, 73°F	D790	psi	16,000
Flexural Modulus, 73°F	D790	psi	500,000
Shear Strength, 73°F	D732	psi	10,500
Compressive Strength, 10% Def., 73°F	D695	psi	14,000
Compressive Modulus of Elasticity, 73°F	D695	psi	400,000
Hardness, Rockwell, Scale as noted, 73°F	D785		M80 (R110)
Hardness, Durometer, Shore D scale, 73°F	D2240		D85
Izod Impact (notched), 73°F	D256 Type A	ft-lb/in	0.5
Coefficient of Friction (Dry vs Steel) Dynamic	PTM55007		0.20
Limiting PV, 73°F	PTM55007	psi-fpm	3,000
k (wear) factor	PTM55010		90
Thermal			
Coefficient of linear Thermal Expansion	E-831(TMA)	in/in/°F	6.00 x 10 ⁻⁵
Deflection Temperature 264 psi	D648	°F	200
Melting Point (crystalline) peak	D3418	°F	420
Continuous Service Temperature in Air (Max.)		°F	200
Electrical			
Dielectric Strength, Short Term	D149(2)	Volts/mil	400
Surface Resistivity	EOS/ESD S11.11	Ohm/square	10 ¹³
Dielectric Constant, 10 ⁶ Hz	D150(2)		3.70

For additional information about our products call 1-800-366-0300 or via e-mail at select.support@qplas.com

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Chemical			
Acids, Weak, 73°F/23°C, acetic acid, dilute hydrochloric or sulfuric			Limited Service
Acids, Strong, 73°F/23°C, conc. hydrochloric or sulfuric			Unacceptable
Alkalies, Weak, 73°F/23°C, dilute ammonia or sodium hydroxide			Limited Service
Alkalies, Strong, 73°F/23°C, conc. ammonia or sodium hydroxide			Unacceptable
Hydrocarbons-Aromatic, 73°F/23°C, benzene, toluene			Acceptable Service
Hydrocarbons-Aliphatic, 73°F/23°C, gasoline, hexane, grease			Acceptable Service
Ketones, Esters, 73°F/23°C, acetone, methyl ethyl ketone			Acceptable Service
Ethers, 73°F/23°C, diethyl ether, tetrahydrofuran			Acceptable Service
Chlorinated Solvents, 73°F/23°C, methylene chloride, chloroform			Limited Service
Alcohols, 73°F/23°C, methanol, ethanol, anti-freeze			Limited Service
Inorganic Salt Solutions, 73°F/23°C, sodium chloride, potassium cyanate			Acceptable Service
Continuous Sunlight, 73°F/23°C			Limited Service
Miscellaneous			
Water Absorption Immersion, 24 hr	D570	%	0.30
Water Absorption Immersion, Sat.	D570	%	7.00
Outgassing TML (Total Mass Loss)	E595	%	2.00
CVCM (Collected Volatile Condensable Material)	E595	%	0.00
WVR(Water Vapor Regained)	E595	%	0.70
Compliance			
UL94			HB

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