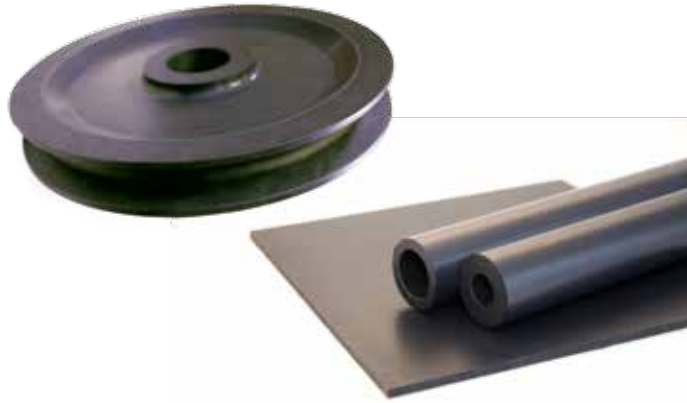


NYLATRON® GSM PA6

**SIMPLY NO
SUBSTITUTE**

**ENHANCED LOAD BEARING CAPABILITIES FOR GEARS,
SHEAVES, SPROCKETS AND MORE**



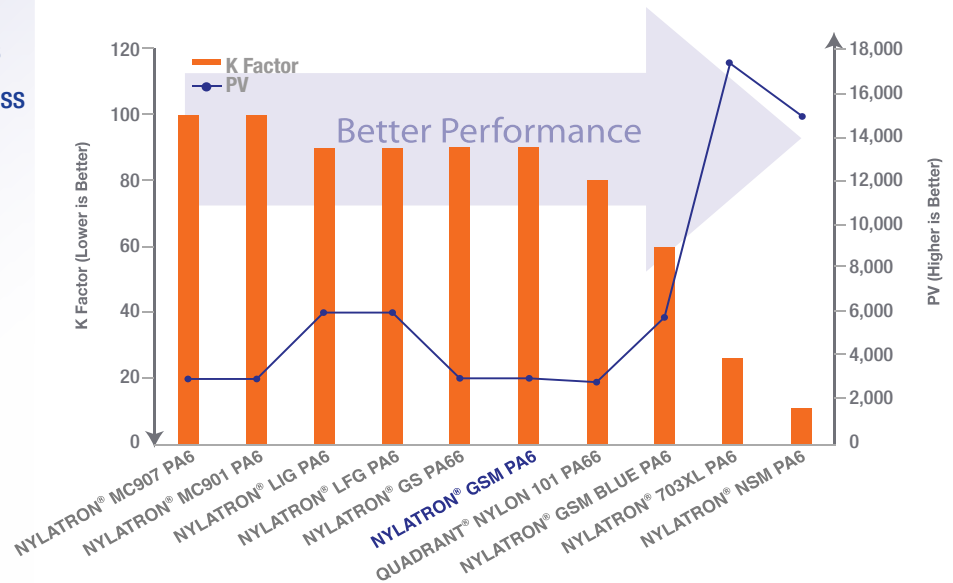
Nylatron® GSM PA6 contains finely divided particles of molybdenum disulfide (MoS2) to enhance its load bearing capabilities while maintaining the impact resistance inherent to Nylon. It is the most commonly used grade for gears, sheaves, sprockets and custom parts. Nylatron® GSM PA6 is grey-black in color.

Key Benefits

- Higher load bearing capabilities
- Broadest range of sizes
- MoS2 filled
- Good mechanical and wear properties
- Ideal balance of strength and toughness
- Popular in construction and transportation

Availability

- Shapes:**
- Sheet/Plate
 - Rod
 - Tube
 - Near Net Shape



Acetron® GP
Duratron® PAI, PEI, PI, PBI
Ertalyte® PET-P
Fluorosint® PTFE
Ketron® PEEK
Nylatron® PA6, PA66
Sanalite® HDPE/PP
Semitron® ESD
Techtron® PPS
TIVAR® UHMW-PE

NYLATRON® GSM PA6

PA PRODUCT APPLICATION



SHEAVES

Problem: Heavy cast or stamped metal sheaves decreased performance of lifting equipment, required frequent lubrication, and shortened the life of the expensive wire rope.

Solution: Specially designed Nylatron® GSM PA6 sheaves eliminated these problems. Nylon sheaves can be easily machined or custom cast when larger series are required.

Benefits: Nylatron® GSM PA6 is seven times lighter than cast iron, thereby reducing overall weight.

Data Sheet - NYLATRON® GSM PA6

	Property	Units	Test Method	Typical Average Value
Mechanical Properties	Specific Gravity @ 73°F	-	ASTM D792	1.16
	Tensile Strength @ 73°F	psi	ASTM D638	11,000
	Tensile Modulus of Elasticity @ 73°F	psi	ASTM D638	6,000
	Tensile Elongation (at break) @ 73°F	%	ASTM D638	30
	Flexural Strength @ 73°F	psi	ASTM D790	16,000
	Flexural Modulus of Elasticity @ 73°F	psi	ASTM D790	500
	Shear Strength @ 73°F	psi	ASTM D732	10,500
	Compressive Strength @ 10% Deformation @ 73°F	psi	ASTM D695	14,000
	Compressive Modulus of Elasticity @ 73°F	psi	ASTM D695	400
	Hardness, Rockwell, Scale as Noted @ 73°F	-	ASTM D785	110
	Hardness, Durometer, Shore "D" Scale @ 73°F	-	ASTM D2240	85
	Notched Izod Impact @ 73°F	ft. lb./in. ²	ASTM D256 Type A	0.5
	Coefficient of Friction - (Dry vs. Steel) Dynamic	-	QTM 55007	0.2
	Limiting PV with 4:1 safety factor applied	ft. lb., in. ² - min	QTM 55007	3,000
	Wear Factor K x 10 ⁻¹⁰	TIVAR®1000=100	QTM 55010	90.0 x 10 ⁻¹⁰
Thermal Properties	Coefficient of Liner Thermal Expansion (-40°F to 300°F)	in./in./°F	ASTM E831 (TMA)	50
	Heat Deflection Temperature @ 264 psi	°F	ASTM D648	200
	Tg-Glass Transition (amorphous)	°F	ASTM D3418	-
	Melting Point (crystalline) peak	°F	ASTM D3418	420
	Continuous Service Temp in Air (Max.) ⁽¹⁾	°F	-	200
	Thermal Conductivity	BTU in./(hr. ft. ² °F)	F433	-
Electrical Properties	Dielectric Strength (Short Term)	Volts/mil	ASTM D149	400
	Surface Resistivity	ohms/square	EOS/ESD S11.11	>10 ¹³
	Dielectric Constant, 10 ⁶ Hz	-	ASTM D150	3.7
	Dissipation Factor, 10 ⁶ Hz	-	ASTM D150	-
	Flammability @ 3.1mm (1/8 in.) ⁽³⁾	-	UL94	HB
Other	Water Absorption Immersion, 24 Hours	% by wt.	ASTM D570 ⁽²⁾	0.6
	Absorption Immersion, Saturation	% by wt.	ASTM D570 ⁽²⁾	7

- (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.

All statements, technical information and recommendations contained in this publication are presented in good faith, based upon tests believed to be reliable and practical field experience. The reader is cautioned, however, that Quadrant Engineering Plastic Products does not guarantee the accuracy or completeness of this information and it is the customer's responsibility to determine the suitability of Quadrant's products in any given application. Acetron, CleanStat, Corzan, Duraspin, Duratron, Ert, Ertacetal, Ertalene, Ertalon, Ertalyte, Extreme Materials, Fluorosint, Ketron, MC, Monocast, Novatron, Nylatrack, Nylatron, Polypenco, Proteus, Sanalite, Semitron, Techtron, TIVAR, Ultrawear and Vibratuf are registered trademarks of the Quadrant group of companies.

* Classix is a registered trademark of Invivo Ltd. Corp. * Rulon is a registered trademark of Saint Gobain Performance Plastics
 * Torlon and Udel are registered trademarks of Solvay Advanced Polymers * Vespel, Delrin and Teflon are registered trademarks of E.I. DuPont
 * Noryl and Lexan are registered trademarks of GE Plastics * Celazole is a registered trademark of PBI Performance Products, Inc.
 * Kynar is a registered trademark of Arkema * Corzan is a registered trademark of Noveon

Design and content created by Quadrant Engineering Plastic Products and are protected by copyright law. Copyright © 2016 The Quadrant group of companies. All rights reserved.
 00923 | 2.8.16 | 500



Distributed by:

