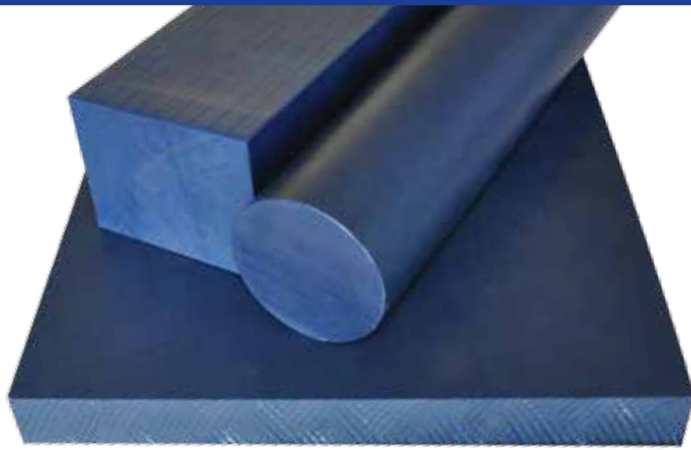


# NYLATRON® GSM BLUE PA6

**BEARING GRADE EXCELS IN HIGH PRESSURE AND AT LOW SPEEDS**



Nylatron® GSM Blue PA6 is the first cast Nylon to combine both molybdenum disulfide (MoS<sub>2</sub>) and oil. With the load capability of Nylatron® GSM PA6 Nylon plus improved frictional characteristics, Nylatron® GSM Blue PA6 excels in higher pressures and at low speeds (up to 40 fpm). It offers 20% lower coefficient of friction, 50% greater limiting PV, and a lower “k” factor than Nylatron® GSM PA6 – making Nylatron® GSM Blue PA6 ideal for slide pads, thrust washers and trunion bearings. Nylatron® GSM Blue PA6 is dark blue in color and should be considered for any oil-filled Nylon application.

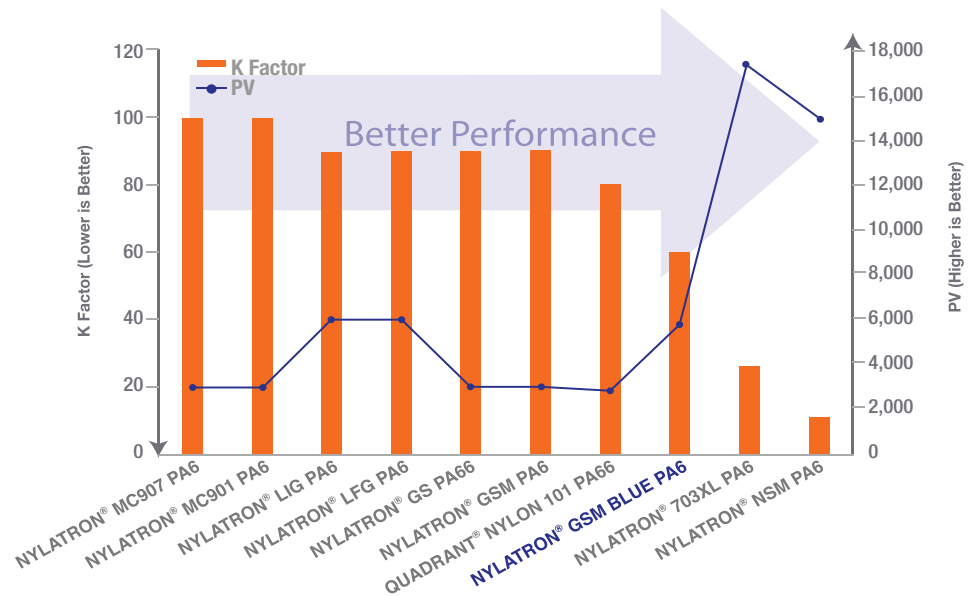
## KEY BENEFITS

- MoS<sub>2</sub> and oil filled
- Improved frictional characteristics
- Excels in higher pressures and at low speeds-up to 40 fpm
- Lower coefficient of friction, greater limiting PV, and a lower “k” factor than Nylatron® GSM PA6

## AVAILABILITY

### SHAPES:

- Sheet/Plate
- Rod
- Tube
- Near Net Shapes



## TIPS

The difference between the static and dynamic COF's indicates “slip-stick.” A large difference indicates high slip-stick, and a low (or no) difference indicates low slip-stick. Slip-stick characteristics are important for applications which move intermittently, or require a back-and-forth motion. For a low slip-stick plastic, look to Nylatron® GSM Blue PA6 and Nylatron® 703XL PA6.



QUADRANT

**PRODUCT APPLICATION**  
**GUILLOTINE WATER GATE GUIDE**

• **Application** – This application is for a wear strip in a very unique gate valve which is used to control the water levels in adjoining bodies of water.

• **Benefits** – The moisture resistance of plastic, combined with its good wear factor makes this Nylatron® GSM Blue PA6 valve more resistant to corrosion and friction than steel.

**DATA SHEET**

	Property	Units	Test Method	Typical Average Value
<b>Mechanical Properties</b>	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	R117
	Hardness, Durometer, Shore "D" Scale @ 73°F	-	ASTM D2240	-
	Notched Izod Impact @ 73°F	ft. lb./in. of notch	ASTM D256 Type "A"	0.9
	Coefficient of Friction – (Dry vs. Steel) Dynamic	-	QTM 55007	0.18
	Limiting PV with 4:1 safety factor applied	ft. lbs./ in. <sup>2</sup> - min	QTM 55007	5,500
Wear Factor K x 10 <sup>-10</sup>	in. <sup>3</sup> - min/(ft. lb. hr)	QTM 55010	65	
<b>Thermal Properties</b>	Coefficient of Linear Thermal Expansion (-40°F to 300°F)	in./in./°F	ASTM E831 (TMA)	5.5 x 10 <sup>-5</sup>
	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 Temp in Air (Max.) <sup>(1)</sup>	°F	-	200
	Thermal Conductivity	BTU in./(hr. ft. <sup>2</sup> °F)	F433	-
<b>Electrical Properties</b>	Dielectric Strength (Short Term)	Volts/mil	ASTM D149	-
	Surface Resistivity	ohms/square	EOS/ESD S11.11	>10 <sup>13</sup>
	Dielectric Constant, 10 <sup>6</sup> Hz	-	ASTM D150	-
	Dissipation Factor, 10 <sup>6</sup> Hz	-	ASTM D150	-
	Flammability @ 3.1mm (1/8 in.) <sup>(3)</sup>	-	UL-94	HB
<b>Other</b>	Water Absorption Immersion, 24 Hours	% by wt.	ASTM D570 <sup>(2)</sup>	0.3
	Absorption Immersion, Saturation	% by wt.	ASTM D570 <sup>(2)</sup>	6

(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.

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. Nylatron is a registered trademark of the Quadrant group of companies.

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001933 | 9.8.17

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