

NYLATRON® NSM PA6

LEADING THE INDUSTRY IN SUPERIOR WEAR RESISTANCE



Nylatron® NSM PA6 outperforms all other “premium” wear grade materials, and was developed specifically for demanding applications (ideal for bearings and wear pads). At an affordable price, Nylatron® NSM PA6 offers advantages like superior wear resistance, weight and noise reduction, corrosion resistance, and easy machining. Save time and money with increased performance and productivity of this self-lubricating Nylatron® PA6 product – less downtime and reduced maintenance.

KEY BENEFITS

- Self lubricating Nylatron® PA6 for superior wear resistance
- Highest wear resistant Nylon available
- k-factor = 12
- PV = 5 X standard cast Nylons
- Longer part life
- Cost vs. performance ratio value
- Continues to outperform other premium materials

AVAILABILITY

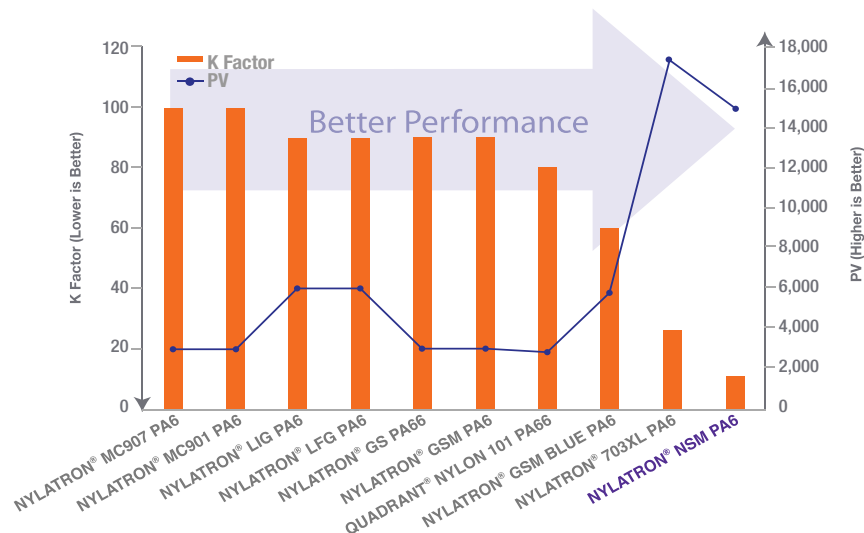
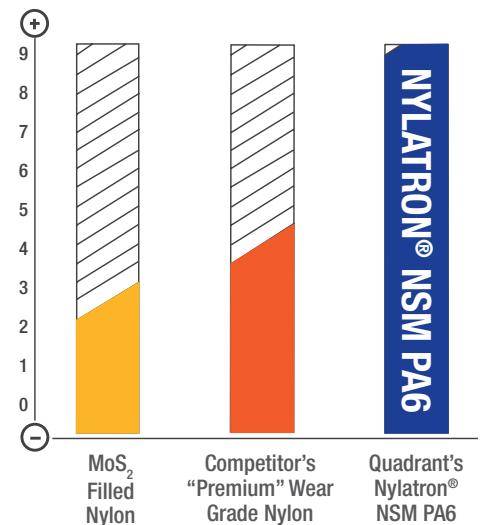
SHAPES:

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

PROFILES:

- Machined to drawing components
- Finished according to prints

RELATIVE WEAR LIFE



DATA SHEET

	Property	Units	Test Method	Typical Average Value
Mechanical Properties	Specific Gravity @ 73°F	-	ASTM D792	1.15
	Tensile Strength @ 73°F	psi	ASTM D638	11,000
	Tensile Modulus of Elasticity @ 73°F	psi	ASTM D638	410,000
	Tensile Elongation (at break) @ 73°F	%	ASTM D638	20
	Flexural Strength @ 73°F	psi	ASTM D790	16,000
	Flexural Modulus of Elasticity @ 73°F	ksi	ASTM D790	475,000
	Shear Strength @ 73°F	psi	ASTM D732	10,000
	Compressive Strength @ 10% Deformation @ 73°F	psi	ASTM D695	14,000
	Compressive Modulus of Elasticity @ 73°F	ksi	ASTM D695	400,000
	Hardness, Rockwell, Scale as Noted @ 73°F	-	ASTM D785	R110
	Hardness, Durometer, Shore "D" Scale @ 73°F	-	ASTM D2240	D85
	Notched Izod Impact @ 73°F	ft. lb./in. of notch	ASTM D256 Type "A"	0.5
	Coefficient of Friction – (Dry vs. Steel) Dynamic	-	QTM 55007	0.18
	Limiting PV with 4:1 safety factor applied	ft. lbs./ in. ² - min	QTM 55007	15,000
	Wear Factor K x 10 ⁻¹⁰	in. ³ - min/(ft. lb. hr)	QTM 55010	12
Thermal Properties	Coefficient of Linear Thermal Expansion (-40°F to 300°F)	in./in./°F	ASTM E831 (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 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	-
	Dissipation Factor, 10 ⁶ Hz	-	ASTM D150	-
	Flammability @ 3.1mm (1/8 in.) ⁽³⁾	-	UL-94	HB
Other	Water Absorption Immersion, 24 Hours	% by wt.	ASTM D570 ⁽²⁾	0.3
	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. Contact Quadrant for specific UL "Yellow Card" recognition number.

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