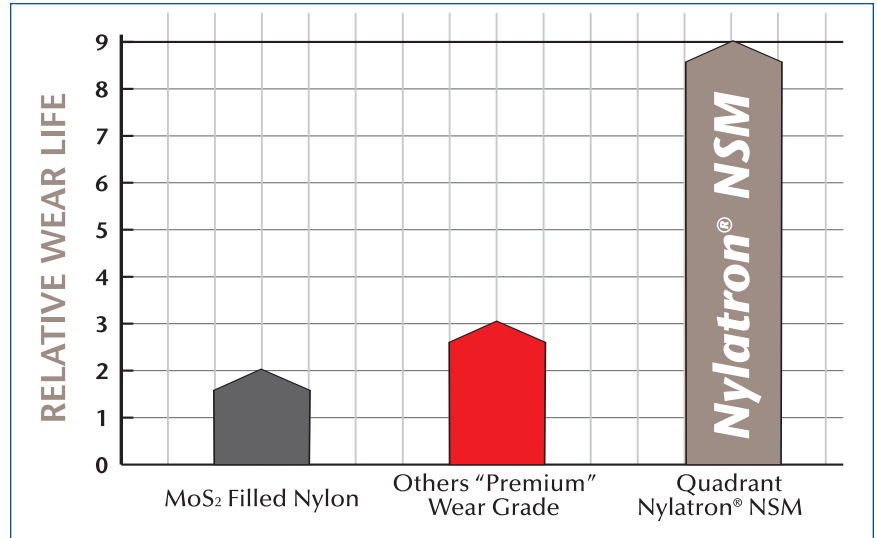
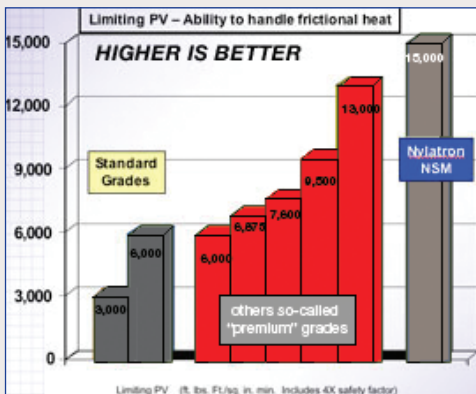
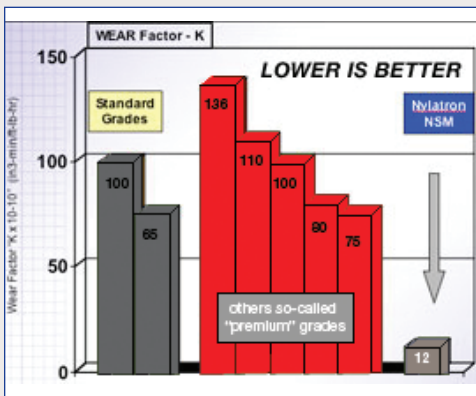


NYLATRON® NSM

OUTLASTS THEM ALL

- ➔ *Self lubricating Nylon 6 for superior wear resistance*
- ➔ *Highest wear resistant thermoplastic available*
 - *k-factor = 12*
 - *PV = 5 X standard cast nylons*
- ➔ *Longer Part Life*
- ➔ *Cost vs. Performance Ratio Value*
- ➔ *Continues to outperform others or other materials again and again*



Measure the Performance

Developed specifically for demanding applications, Nylatron® NSM outperforms all other "premium" wear grade materials by far. Ideal for bearings and wear pads, Nylatron® NSM offers advantages beyond superior wear resistance at an affordable price. It provides weight and noise reduction, corrosion resistance, and easy machining. With less downtime and reduced maintenance, save time and money by realizing the increased performance and productivity of this self-lubricating nylon.

Nylatron® NSM truly outlasts them all. Give your Quadrant representative a call or visit us on the web to learn more.

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Data Sheet - Nylatron® NSM Premium Wear-Resistant PA6

**Typical
Average
Value**

Property

Units

Test Method

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	psi	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	psi	ASTM D695	400,000
Hardness, Rockwell, Scale as noted, 73°F	-	ASTM D785	M80 (R110)
Hardness, Durometer, Shore "D" Scale, 73°F	-	ASTM D2240	D85
Izod Impact (notched), 73°F	ft. lb./in.	ASTM D256 Type "A"	.05
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. lbs. hr.	QTM 55010	12

Thermal Properties

Coefficient of Liner 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)	-	-

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 @ 3.1 mm (1.8 in.) (3)		UL94	HB

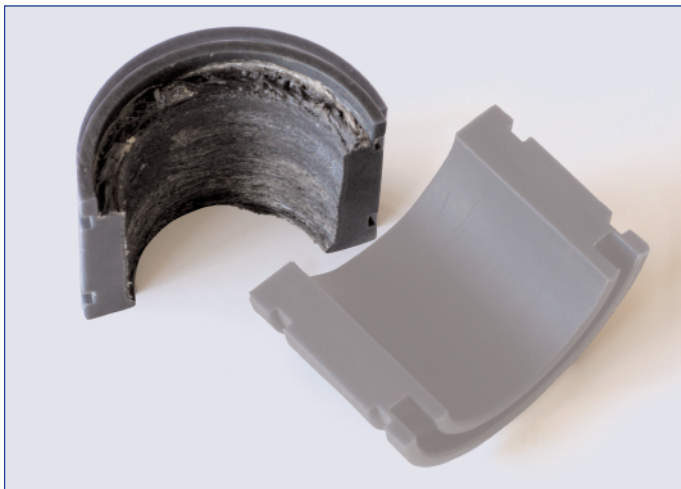
Miscellaneous

Water Absorption Immersion, 24 Hours	% by wt.	ASTM D570 (2)	0.3
Water Absorption Immersion, Saturation	% by wt.	ASTM D570 (2)	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 UL94 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.

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The MoS2 filled nylon bearing to the left displays considerable wear and damage while the Nylatron NSM part remains in pristine condition while both performed in identical environments.

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