Quadrant EPP Nylatron® 703 XL

Polyamide 6

Quadrant Engineering Plastic Products

Message:

Nylatron® 703 XL sets a new standard of machined part performance for linear bearing and wear pad applications. Building on the success of Quadrant Engineering Plastic Products Nylatron® NSM, the industry's premier material for nearly 20 years, Nylatron 703 XL provides lifting equipment with a new advantage. The wear resistance of NSM with added benefit of zero "slip-stick" makes Nylatron 703 XL an ideal material for applications where precise motion control is required.
Units equipped with Nylatron 703 XL can accurately display smaller movements made possible by today's sophisticated control devices. Static and dynamic coefficients of friction that approximate each other at virtually every point over the product's useful range, make this possible.
Quadrant developed Nylatron 703 XL to meet the increasing needs of engineers in the construction and production equipment industries. Materials like Nylatron® NSM and Nylatron® GSM are still available, and are widely used in critical bearing applications. Quadrant offers a broad range of bearing and wear resistant materials that can handle aggressive thermal, wear and chemical environments.

General Information			
Additive	Lubricant		
Features	Good Abrasion Resistance Good Chemical Resistance Good Dimensional Stability Good Strength Good Thermal Stability Good Wear Resistance Hydrocarbon Resistant Lubricated Machinable		
Uses	Bearings Bushings		
Processing Method	Casting		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity	1.11	g/cm³	ASTM D792
Water Absorption			ASTM D570
24 hr	0.47	%	
Saturation	7.0	%	
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (M-Scale)	65		ASTM D785
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	2760	MPa	ASTM D638
Tensile Strength (Ultimate)	62.1	MPa	ASTM D638
Tensile Elongation (Break)	15	%	ASTM D638
Flexural Modulus	2480	MPa	ASTM D790
Flexural Strength (Yield)	89.6	MPa	ASTM D790

Compressive Modulus	2480	MPa	ASTM D695
Compressive Strength (10% Strain)	68.9	MPa	ASTM D695
Coefficient of Friction (vs. Steel - Static)	0.14		Internal Method
Wear Factor	52	10^-8 $mm^3/N \cdot m$	ASTM D3702
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact	37	J/m	ASTM D256A
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load (1.8 MPa, Unannealed)	93.3	°C	ASTM D648
Maximum Use Temperature - Long Term, Air	93	°C	
Limiting Pressure Velocity [1]	0.596	MPa·m/s	Internal Method
Peak Crystallization Temperature (DSC)	216	°C	ASTM D3418
CLTE - Flow [2] (-40 to 149°C)	8.8E-5	cm/cm/°C	ASTM E831
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity [3]	> 1.0E+12	ohms	Internal Method
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating (3.18 mm, Estimated Rating)	HB		UL 94
NOTE			
1.	4:1 safety factor		
2.	68°F		
3.	EOS/ESD S11.11		

Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China