



## Material: Cast Nylon 6 + Solid Lubricant

Cast Nylon 6 Internally Lubricated, also know as Nylatron® NSM. Proprietary cast nylon 6 formulation containing solid lubricant additives which grant this material self-lubricated, excellent frictional properties, superior wear resistance and outstanding pressure-velocity capabilities.

### Technical Specification

Property	Test Method	Units	Value
Colour	-	-	Grey
Density	ISO 1183	g/cm <sup>3</sup>	1.15
Water Absorption - saturation in air (23°C/50%RH)	-	%	2.0
Water Absorption - saturation in water (23°C)	-	%	6.30
Tensile strength* <sup>1</sup>	ISO 527	N/mm <sup>2</sup>	76
Tensile modulus of elasticity* <sup>1</sup>	ISO 527	N/mm <sup>2</sup>	3100
Elongation at break* <sup>1</sup>	ISO 527	%	25
Impact - Charpy* <sup>1</sup>	179/1eU	kJ/m <sup>2</sup>	>100
Impact – Izod notched	180/2A	kJ/m <sup>2</sup>	4
Hardness	Rockwell Shore D	-	M81
Melt point	-	°c	220
Max service temp in air short periods	-	°c	165
Max service temp continuously for 20000hrs	-	°c	90
Linear thermal expansion coefficient	-	K <sup>-1</sup> x10 <sup>-5</sup>	8.0
Thermal Conductivity	-	W/(K.m)	0.29
Flammability (6mm thickness)	-	-	HB
Volume resistivity* <sup>1</sup>	IEC93	Ohm.cm	>10 <sup>14</sup>
Dielectric strength* <sup>1</sup>	IEC243	Kv/mm	25
Outside applications – UV resistance	-	-	B
Acids – strong (Ph<3)	-	-	C
Alkalis – strong (pH>11)	-	-	B/C
Chlorinated Hydrocarbons	-	-	A/B
Hot Water	-	-	B
‘A’ – Acceptable service, ‘B’ – Limited, ‘C’ – Unacceptable			
* <sup>1</sup> Measured on dry test specimens (where applicable)			

#### Availability:

Rod, 3m long – 50-150mm diameter

Rod, 1m long – 50-500mm diameter

Plate, 610mm x 1220mm, 1220mm x 2000mm, 1220mm x 2440mm – 10-100mm thickness

Tube, 2m long x 50–150mm od x 20–135mm id.

Tube, 1m long x 155mm-260mm od x 50–235mm id.

#### Applications:

Racks, Pinions, Gears, Bearings, Rollers, Wheels, Cable Sheaves, Cams, Nuts, Valve seats, Pulleys, Gaskets, Electrical Insulator.

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The data shown are typical values and are not intended to represent specifications. Their aim is to guide the user toward a material choice.

Not all material sizes shown within the availability programme of this data sheet are available as standard.

Please contact ABG Rubber and Plastics Ltd for further details.