



Material: Cast Nylon 6 Oil Filled

Internally lubricated cast nylon 6 in the real meaning of the word. Specially developed for unlubricated, highly loaded and slowly moving parts applications. It yields a considerable enlargement of the application possibilities of nylons. This is because of its reduced coefficient of friction (up to -50%) and improved wear resistance (up to x 10).

Technical Specification

Property	Test Method	Units	Value
Colour	-	-	Green
Density	ISO 1183	g/cm ³	1.135
Water Absorption - saturation in air (23°C/50%RH)	-	%	2.0
Water Absorption - saturation in water (23°C)	-	%	6.30
Tensile strength* ¹	ISO 527	N/mm ²	70
Tensile modulus of elasticity* ¹	ISO 527	N/mm ²	3000
Elongation at break* ¹	ISO 527	%	25
Impact - Charpy* ¹	179/1eU	kJ/m ²	>50
Impact – Izod notched	180/2A	kJ/m ²	4
Hardness	Rockwell Shore D	-	M82
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 ⁻¹ x10 ⁻⁵	8.0
Thermal Conductivity	-	W/(K.m)	0.28
Flammability (6mm thickness)	-	-	HB
Volume resistivity* ¹	IEC93	Ohm.cm	>10 ¹⁴
Dielectric strength* ¹	IEC243	Kv/mm	22
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			
* ¹ 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, Cams, Nuts, Valve seats, Pulleys, Gaskets, Electrical Insulators

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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.