



Material: Cast Nylon 6 + Internal Lubricants

The only nylon with ZERO stick slip allowing more precise, sensitive motion control. Comparative tests done by an independent research institute have established that Cast Nylon 6 Internally Lubricated (Nylatron® 703XL) has the lowest dynamic and static coefficient of friction of any commercial nylon. This results in good wear resistance and in many cases eliminates lubrication. Excellent mechanical and thermal properties.

Technical Specification

Property	Test Method	Units	Value
Colour	-	-	Purple
Density	ISO 1183	g/cm ³	1.11
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	62
Tensile modulus of elasticity* ¹	ISO 527	N/mm ²	2750
Elongation at break* ¹	ISO 527	%	10
Impact - Charpy* ¹	179/1eU	kJ/m ²	>25
Impact – Izod notched	180/2A	kJ/m ²	3
Hardness	Rockwell Shore D	-	M59
Melt point	-	°C	220
Max service temp in air short periods	-	°C	160
Max service temp continuously for 20000hrs	-	°C	90
Linear thermal expansion coefficient	-	K ⁻¹ x10 ⁻⁵	8.5
Thermal Conductivity	-	W/(K.m)	0.30
Flammability (6mm thickness)	-	-	HB
Volume resistivity* ¹	-	Ohm.cm	>10 ¹²
Dielectric strength* ¹	-	Ohm	>10 ¹²
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:

Plate, 1220mm x 3050mm – 10-80mm thickness

Applications:

Heavy wear applications, Wear pads, Bearing blocks, Wear guides, Linear bearings and bushings, Precision motion control applications, sliding elements, linings, conveyor system

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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.