



Material: Cast Nylon 6

Unmodified cast nylon 6 grade exhibiting characteristics which come very close to those of Nylon 66. It combines high strength, stiffness and hardness with good creep and wear resistance, heat ageing properties and machinability.

Technical Specification

Property	Test Method	Units	Value
Colour	-	-	Natural (Ivory)/Black
Density	ISO 1183	g/cm ³	1.15
Water Absorption - saturation in air (23°C/50%RH)	-	%	2.20
Water Absorption - saturation in water (23°C)	-	%	6.50
Tensile strength* ¹	ISO 527	N/mm ²	85
Tensile modulus of elasticity* ¹	ISO 527	N/mm ²	3500
Elongation at break* ¹	ISO 527	%	25
Impact - Charpy* ¹	179/1eU	kJ/m ²	No break
Impact – Izod notched	180/2A	kJ/m ²	3.5
Hardness	Rockwell Shore D	-	M88
Melt point	-	°c	220
Max service temp in air short periods	-	°c	170
Max service temp continuously for 20000hrs	-	°c	90
Linear thermal expansion coefficient	-	K ⁻¹ x10 ⁻⁵	8.0
Thermal Conductivity	-	W/(K.m)	0.29
Flammability (6mm thickness)	-	-	HB
Volume resistivity* ¹	IEC93	Ohm.cm	>10 ¹⁴
Dielectric strength* ¹	IEC243	Kv/mm	25
Outside applications – UV resistance	-	-	B/A
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, Cable Sheaves, Cams, Nuts, Valve seats, Pulleys, Gaskets, Electrical Insulation

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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.