



Material: Cast Nylon 6 Heat Stabilised

Cast Nylon 6 Heat Stabilised (Nylatron® MC901) is a modified cast nylon 6 grade with a distinctive blue colour. It exhibits higher toughness, flexibility and fatigue resistance than Ertalon® 6PLA. It has proved to be an excellent material for gear wheels, racks and pinions, successfully replacing phosphor bronze and cast iron in many applications.

Technical Specification

Property	Test Method	Units	Value
Colour	-	-	Blue
Density	ISO 1183	g/cm ³	1.15
Water Absorption - saturation in air (23°C/50%RH)	-	%	2.30
Water Absorption - saturation in water (23°C)	-	%	6..60
Tensile strength* ¹	ISO 527	N/mm ²	81
Tensile modulus of elasticity* ¹	ISO 527	N/mm ²	3200
Elongation at break* ¹	ISO 527	%	35
Impact - Charpy* ¹	179/1eU	kJ/m ²	No break
Impact – Izod notched	180/2A	kJ/m ²	3.5
Hardness	Rockwell Shore D	-	M85
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
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 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.