



Material: Nylon 4.6 (Stanyl®)

Compared with the conventional nylons, Ertalon® 4.6 (Stanyl®) features a better retention of stiffness and creep resistance over a wide range of temperatures as well as superior heat ageing resistance. Applications for Nylon 4.6 are suited in the higher temperature are (80-150°C) where stiffness, creep resistance, heat ageing resistance, fatigue strength and wear resistance of PA6, PA66, POM and PET fall short.

Technical Specification

Property	Test Method	Units	Value
Colour	-	-	Reddish Brown
Density	ISO 1183	g/cm ³	1.18
Water Absorption - saturation in air (23°C/50%RH)	-	%	2.8
Water Absorption - saturation in water (23°C)	-	%	9.5
Tensile strength* ¹	ISO 527	N/mm ²	100
Tensile modulus of elasticity* ¹	ISO 527	N/mm ²	3300
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	8
Hardness	Rockwell Shore D	-	M92
Melt point	-	°C	295
Max service temp in air short periods	-	°C	200
Max service temp continuously for 20000hrs	-	°C	135
Linear thermal expansion coefficient	-	K ⁻¹ x10 ⁻⁵	8.0
Thermal Conductivity	-	W/(K.m)	0.3
Flammability (6mm thickness)	-	-	HB
Volume resistivity* ¹	IEC93	Ohm.cm	>10 ¹⁴
Dielectric strength* ¹	IEC243	Kv/mm	25
Outside applications – UV resistance	-	-	A
Acids – strong (Ph<3)	-	-	C
Alkalis – strong (pH>11)	-	-	B/C
Chlorinated Hydrocarbons	-	-	A
Hot Water	-	-	B
'A' – Acceptable service, 'B' – Limited, 'C' – Unacceptable			
* ¹ Measured on dry test specimens (where applicable)			

Availability:

Rod, 1m & 3m long – 5-60mm diameter

Plate, 1m & 3m long x 610 wide – 10-40mm thickness

Applications:

Sealing rings for hydraulic equipment, Gears, Camplates, Hydraulic brake pistons, Electrical coil core

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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.