

NYLATRON® GS Product Information

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Polyamide 66 (nylon66, PA 66 + MoS2)

The performance of nylon 66 can be enhanced by the incorporation of a filler. NYLATRON® GS has been modified with molybdenum disulphide (MoS₂), which results in a material with even better wear resistance and a lower coefficient of friction. Stiffness, tensile strength and temperature resistance are also improved. NYLATRON® GS is ideal for dynamic bearing and wear applications.

DELIVERY PROGRAMME

Standard Rod 3m long

Diameter (mm): 6(Min) 50 (Max)

Precision Ground Rod 3m long

Diameter (mm): 6(min) 50.8 (Max)

Standard Plate 610mm side

Length: 1 m and 3m
Thickness (mm): 8 (Min) 50 (Max)

Machined Plate 610mm x 1220mm

Thickness (mm): 1.59 (Min) 50.8 (Max)

Coiled Strip

Thickness (mm): 0.25 (Min) 50.8 (Max)
Width (mm): 25.4 (Min) 101.6 (Max)

PROPERTIES	UNITS	VALUE
Density	g/cm ³	1.15
Water Absorption	after 24/96 h in water of 23° C	%
	at saturation in air of 23° C / 50% RH	%
	at saturation in water of 23° C	%
		2.3
		7.8
THERMAL PROPERTIES		
Melting point	°C	255
Thermal Conductivity at 23°C	W/(K.m)	.29
Coefficient of linear thermal expansion:		
	Average value between 23 and 60°C	m/(m.K)
	Average value between 23 and 100°C	m/(m.K)
		75 x 10 ⁻⁶
		90 x 10 ⁻⁶
Deflection temperature under flexural load: method A: 1.8N/mm ²	°C	100
Max allowable surface temperature in air:		
	Short periods, a few hrs at a low load	°C
	Continuously: 5000/20000 hours	°C
		180
		100/85
Minimum service temperature	°C	-20
Flammability: ASTM (Oxygen index)	%	26
MECHANICAL PROPERTIES @ 23°C		
Tensile stress at yield	dry test specimen	N/mm ²
	Test specimens standard atmosphere 23°C/50% RH	N/mm ²
		94
		60
Tensile strain at break	dry test specimen	%
	Test specimens standard atmosphere 23°C/50% RH	%
		-
		-
Tensile modulus of elasticity	dry test specimen	N/mm ²
	Test specimens standard atmosphere 23°C/50% RH	N/mm ²
		3400
		1900
Compression test 1% offset yield strength	dry test specimen	N/mm ²
		46
Creep test in tension; stress to produce 1% strain in 1000 hrs		N/mm ²
	Test specimens standard atmosphere 23°C/50% RH	N/mm ²
		9
Impact strength – Charpy	dry test specimen	kJ/m ²
		No break
Notched impact strength	Charpy dry test specimen	kJ/m ²
	Test specimens standard atmosphere 23°C/50% RH	kJ/m ²
		12
	- Izod dry test specimen	kJ/m ² : J/m
		4 ; 40
	Test specimens standard atmosphere 23°C/50% RH	kJ/m ² : J/m
		9 ; 90
Ball indentation hardness H358/30 or H 961/30		N/mm ²
		-
Rockwell hardness		M90
ELECTRICAL PROPERTIES		
Dielectric strength	dry test specimen	kV/mm
	Test specimens standard atmosphere 23°C/50% RH	kV/mm
		26
		17
Volume resistivity	dry test specimen	Ohm.cm
	Test specimens standard atmosphere 23°C/50% RH	Ohm.cm
		10 ¹⁵
		10 ¹⁴
Surface resistivity	dry test specimen	Ohm
	Test specimens standard atmosphere 23°C/50% RH	Ohm
		10 ¹⁵
		10 ¹⁴
Dielectric constant:	@ 50Hz dry test specimen	-
	Test specimens standard atmosphere 23°C/50% RH	-
		3.8
		7.4
	@ 1MHz dry test specimen	-
	Test specimens standard atmosphere 23°C/50% RH	-
		3.3
		3.8
Dissipation factor tan	@ 50Hz dry test specimen	-
	Test specimens standard atmosphere 23°C/50% RH	-
		0.013
		0.13
	@ 1 MHz dry test specimen	-
	Test specimens standard atmosphere 23°C/50% RH	-
		0.02
		0.06
Resistance to racking	dry test specimen	-
	Test specimens standard atmosphere 23°C/50% RH	-
		CTI 600
		CTI 600

- CNC
- Designing
- 3D Printing
- Consulting
- Engineering
- 3D Scanning

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