

MC Nylon Properties Data Sheet

Technical Data	Method of Verification	Unit	MC Nylon
Physical Properties			
Density	ISO 1183	g/cm ³	1.15
Water absorption	ISO 62	%	2.5
Mechanical Properties			
Tensile strength at yield	ISO 527-2	MPa	80
Tensile strength at break	ISO 527-2	Mpa	-
Elongation at break	ISO 527-2	%	3
Modulus of elasticity after tensile test	ISO 527-2	MPa	3,300
Modulus of elasticity after flexural test	ISO 178	MPa	-
Hardness-Rockwell	ISO 2039-2		-
Hardness - Shore D	DIN 53505		84
Charpy impact strength at 23°C	ISO 179	kJ/m ²	N.B.
Friction coefficient	DIN 53375		0.36
Thermal Properties			
Heat deflection temperature -	ISO 75-2	°C	95
Max. service temperature - Short term		°C	180
Max. service temperature - Long term		°C	105
Thermal conductivity at 23 °C	DIN 11359	W/(K*m)	0.23
Coefficient of linear thermal expansion	ISO 11359	10 ⁻⁴ K ⁻¹	0.8
Electrical Properties			
Dielectric constant at 1 MHz	IEC 60250	10 ⁶ Hz	3.70
Dielectric loss factor at 1 MHz	IEC 60250	10 ⁶ Hz	0.03
Volume resistivity	IEC 60093	Ohm (Ω) * cm	≥10 ¹⁵
Surface resistivity	IEC 60093	Ohm (Ω)	≥10 ¹³
Dielectric strength	IEC 60243-1	kV/mm	50
Miscellaneous Data			
Flammability	UL 94	Class	HB
NOTE: 1 g/cm³ = 1,000 kg/m³, 1 Mpa = 1 N/mm², 1kV/mm = 1 MV/m			

Statement:

NOTE: The information contained herein are typical values intended for reference and comparison purposes only. They should NOT be used as a basis for design specifications or quality control. ENERGETIC will not provide any legally binding guarantee of certain properties, or any suitability.