

Nylon

Polyamide 6

Physical	Test Method	Nominal Value (SI)
Specific Gravity	ASTM D-792	$1.14 \frac{g}{cm^3}$
Melt Volume Flow Rate (MVR)		
220°C/2.16 kg	ISO 1133	$\frac{15 - 20 g}{10 min}$
270°C/2.16 kg	ISO 1133	$\frac{45 - 55 g}{10 min}$
Molding Shrinkage	ISO 293-4	1.0-1.5 %
Mechanical		
Tensile Strength (25 mm/min)	ISO 527	72 MPa
Elongation at Break (25 mm/min)	ISO 527	110%
Tensile Modulus (1 mm/min)	ISO 527	2600 MPa
Flexural Stress (2 mm/min)	ISO 178	85 MPa
Impact		
Charpy Impact Strength (+23°C)	ISO 179/1	No Break
Charpy Impact Strength (-30°C)	ISO 179/1	80 kJ/m ²
Charpy Notched Impact Strength (+23°C)	ISO 179/1	6.0 kJ/m ²
Charpy Notched Impact Strength (-30°C)	ISO 179/1	6.0 kJ/m ²
Izod Unnotched Impact Strength (+23°C)	ISO 180/1	No Break
Izoz Notched Impact Strength (+23°C)	ISO 180/1	5.0

Thermal		
Deflection Temperature Under Load		
0.45 MPa	ISO 75-1/-2	130-135 °C
1.80 MPa	ISO 75-1/-2	63 °C
Vicat Softening Temperature (50°C/h, 50 N)	ISO 306	200 °C
Electrical		
Dielectric Strength (thickness 1mm)	IEC 60243-1	28 kV/mm
Volume Resistivity	IEC 60093	(1-3)e13 Ohm * m
Permittivity (1 MHz)	IEC 60250	3.3-3.6
Dissipation Factor (1 MHz)	IEC 60250	0.02-0.03