

Technical Data Sheet

Nylon 6 Cast

Advantages

- General purpose nylon
- Low weight
- Outstanding toughness
- Excellent impact resistance
- Wear resistance
- Abrasion resistance
- Erosion / corrosion resistance

	Test Standard	Units	Guide Values
General			
Colour			Natural/Black/Others
Density	ISO1183:1987	g/cm ³	1.145
Moisture Absorption (Equilibrium)	ISO 62:1999	%	-
Water Absorption (24 Hours)	ISO 62:1999 (modified)	%	0.3
Water Absorption (Saturation)	ISO 62:1999	%	7.0
Mechanical Properties			
Tensile strength	ISO 527-1/2:1993	MPa	80
E-modulus	ISO 527-1/2:1993	MPa	4000
Elongation at break	ISO 527-1/2:1993	%	>20
Compressive Strength	ISO 604:2002	MPa	95
Compressive Modulus	ISO 604:2002	MPa	2700
Flexural Strength*	ISO 178:2001	MPa	105
Flexural Modulus	ISO 178:2001	MPa	3300
Izod Impact Strength	ISO 180:2000	KJ/m ²	5.6
Charpy Impact Strength	ISO 179-2:1999	KJ/m ²	-
Hardness (Shore D)	ISO 868:2003	-	84
Coefficient of Friction (Dynamic)		-	0.39
Limiting PV		MPa/m.min	-
Wear Rate		mg/km	0.44
K-Factor		mm ³ /Nm	5.0 x 10 ⁻⁶
Thermal Properties			
Melting Temperature	-	°C	220
Glass Transition Temperature (Tg)	ISO 11359-2:1999	°C	-
Heat Deflection Temperature HDT/A	ISO 75	°C	-
Heat Deflection Temperature HDT/B	ISO 75	°C	-
Maximum Intermittent Service Temperature	-	°C	170
Maximum Continuous Service Temperature	-	°C	100
Minimum Intermittent Service Temperature	-	°C	-100
Minimum Continuous Service Temperature	-	°C	-40
Coefficient of Linear Thermal Expansion (TMA)	ISO 11359-2:1999	°C ⁻¹	8 x 10 ⁻⁵
Thermal Conductivity	ISO 8301:1991	W/m.°C	0.26
Flammability	IEC 60695-11-10:2003-08	-	HB
Electrical Properties			
Dielectric Constant	IEC 60250:1969-01	-	3.7
Dielectric Constant (Low Frequency)		-	4
Dissipation Factor	IEC 60250:1969-01	Hz	-
Dielectric Strength	IEC 60243-1:1998-01	kV/mm	25
Volume Resistivity	IEC 60093:1980-01	ohm.m	1 x 10 ¹³
Surface Resistivity ROA	IEC 60093:1980-01	ohm	1 x 10 ¹²
Comparative Tracking Index	IEC 60112:2003-01	CTI	600

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