TECHNICAL DATA SHEET

Extruded Nylon

Polyamide 6 (PA6), extruded

Property	Standard	Unit	Value
MECHANICAL PROPERTIES			
Density	ASTM D792	g/cm^3	1.152
Tensile strength	ASTM D638	MPa	74.2
Elongation at break	ASTM D638	%	5
Flexural strength	ASTM D790	MPa	105
Flexural modulus	ASTM D790	MPa	2200
Hardness	ASTM D2240	Shore D	75
Impact strength	ASTM D256	kJ/m^2	7.6
THERMAL PROPERTIES			
Melting point	DSC	°C	220
Working temperature	ASTM D648	°C	70
Continuous service temperature	—	°C	85
Short-term service temperature	—	°C	160
Thermal conductivity	DIN 52612-1	W/(m·K)	0.23
Coefficient of thermal expansion	ASTM D696	$10^{-5}\ K^{-1}$	8
ELECTRICAL PROPERTIES			
Dielectric strength	ASTM D150	kV/mm	25
Dielectric dissipation factor	ASTM D150	—	0.032
Volume resistivity	ASTM D257	Ω·cm	10^{14}
Surface resistivity	ASTM D257	Ω	10^{16}
Dielectric constant	ASTM D149	—	4.2
CHEMICAL PROPERTIES			
Water absorption	23 °C · 60% RH	%	1.28
Resistance to acids	23 °C · 60% RH	—	–
Resistance to alkalis	—	—	+
Resistance to acidic and alkaline solutions	—	—	+
Resistance to chlorinated alkalis	—	—	0
Resistance to aromatic compounds	—	—	+
Resistance to ketones	23 °C · 60% RH	—	+
Resistance to water	23 °C · 60% RH	—	+
OTHER PROPERTIES			
Flammability	UL 94	—	HB
Bondability	—	—	+
Non-toxic and harmless	EEC 90/128 · FDA	—	+
Coefficient of friction	DIN 53375	—	0.36
UV resistance	—	—	–

Chemical resistance key: + resistant · 0 depends on application · – not resistant

Typical reference values provided by the manufacturer, obtained on standard test specimens. Values may vary with batch, thickness, processing and service conditions and must not be used as specifications. Validation in the final application is recommended.