

Average technical characteristics

Legend

PA = Nylon (Polyamide) PP = Polypropylene PE - HD = Polyethylene
PA - GF = Nylon Glass Filled POM = Polyacetal (Delrin) PVDF = Polyvinylfluoride

Material						
PA	PA - GF	PP	POM	PE - HD	PVDF	

Mechanical properties

Density	1.14 g/cm ³	1.29 g/cm ³	0.90 g/cm ³	1.40 g/cm ³	0.95 g/cm ³	1.76 g/cm ³
Humidity absorption	2.6%	1.8%	0.1%	0.28%	0.1%	0.04%
Modulus of elasticity	1100 Mpa	5300 Mpa	1000 Mpa	3000 Mpa	1100 Mpa	2300 Mpa
Elongation	4.5 to 20%	4 to 5%	-	8 to 25%	-	8 to 10%
Hardness	-	-	73 Shore D	83 Shore D	70 Shore D	78 Shore D

Thermic properties

Normal working temperature	-30 to +100°C	-40 to +130°C	-30 to +100°C	-40 to +95°C	+40 to +80°C	-40 to +110°C
Peak temperature	+150 to +170°C	+180°C	+140°C	+140°C	+90°C	+150°C
Melting point	+250°C	+255°C	+170°C	+165°C	+135°C	+170°C
Combustibility	V2 UL 94	-	-	HB UL 94	HB UL 94	VO UL 94

Electrical properties

Transversal resistance	10 ¹² ohm. cm	10 ¹⁵ ohm. cm	10 ¹⁷ ohm. cm	10 ¹⁵ ohm. cm	10 ¹⁷ ohm. cm	10 ¹⁴ ohm. cm
Dielectric strength	30 Kv/mm	60 Kv/mm	50 Kv/mm	20 Kv/mm	50 Kv/mm	20 Kv/mm

Nylon 6/6 Polyamide (PA)

General-purpose nylon 6/6 has good toughness, tensile strength, and resistance to creep, particularly in the high temperature range. Nylon has excellent wear properties, low coefficient of friction, and exceptional chemical resistance particularly to aromatic hydrocarbons, greases and oils.

Nylon is a hygroscopic material. Moisture acts as a plasticiser reducing the tensile strength, stiffness and increasing elongation, impact strength, and energy absorbing characteristics. Outdoor weathering can be improved by the addition of carbon black. Nylon will perform well in long range service in most applications at temperatures as high as 85°C. Nylon is a translucent off white colour.