

Nylon 66

Plastic Sheet



Nylon 66 is an extruded nylon that has high mechanical strength, stiffness, heat and wear resistance, and also has good creep resistance - but its impact strength and mechanical damping ability are reduced. This material is well suited for machining on automatic lathes. Of all the unmodified nylons, This one is the strongest, most rigid and has one of the highest melting points.

Features

- The Surface Resistivity of this material is 10^{13}Ohm
- The Melting Temperature of this material is 260°C
- The Rockwell Hardness of this material is M 88

Availability

- Available in thicknesses from 1mm – 4mm thick
- Sheet sizes are 100cm x 100cm

Benefits and Applications

- High Mechanical Strength
- Heat and Wear Resistance
- Good Mechanical Damping

Applications

- Appliances
- Automotive
- Industrial

Physical Properties

Property (unit)	Test Method	Nylon
Colour	-	Cream / Black
Density (g/cm³)	ISO 1183-1	1.14
Water Absorption: - After 24/96 h immersion in water of 23°C (mg)	ISO 62	40 / 76
Melting Temperature (°C)	ISO 11357-1/-3	260
Thermal Conductivity (W/(m.k))	-	0.28
Coefficient of linear thermal expansion (m/(m.k)): - Average value between 23 and 60°C - Average value between 23 and 100°C	- -	80 x 10 ⁻⁶ 95 x 10 ⁻⁶
Temperature of deflection under load: - Method A: 1.8 MPa	ISO 75-1/-2	85
Max. allowable service temperature in air: - For short periods (°C) - Continuously: for 5,000 / 20,000 h	- -	180 95 / 80
Min. service temperature (°C)	-	-30
Flammability (%): - "Oxygen Index" - According to UL 94 (3 / 6mm thickness)	ISO 4589-1/-2 -	26 HB / HB

Mechanical Properties

Property (unit)	Test Method	Nylatron
Tension Test: - tensile stress at yield / tensile stress at break (MPa) - tensile strength (MPa) - tensile strain at yield (%) - tensile strength at break (%) - tensile modulus of elasticity (MPa)	- ISO 527-1/-2 ISO 527-1/-2 ISO 527-1/-2 ISO 527-1/-2 ISO 527-1/-2	- 90 / - 93 5 50 3550
Compression Test: - compressive stress at 1 / 2 / 5% nominal strain (MPa)	ISO 604	32 / 62 / 100
Charpy Impact Strength – Unnotched (KJ/m²)	ISO 179-1/1eU	No Break
Charpy Impact Strength – Notched (KJ/m²)	ISO 179-1/1eA	4.5
Ball Indentation Hardness (N/mm²)	ISO 2039-1	160
Rockwell Hardness	ISO 2039-2	M88
Surface Resistivity (Ohm)	IEC 60093	> 10 ¹³



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