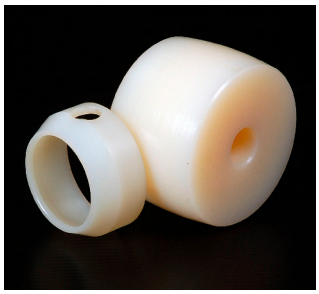
Nylon 66 Sheet, Rod and Tube



Nylon 66 from Allplastics.

Allplastics offers extruded Nylon 66 a semi-crystalline engineering thermoplastic with universal applications. It is noted for its high temperature resistance and high tensile strength. It has higher mechanical strength, stiffness and toughness than Nylon 6. it also has superior machining properties and exhibits better heat, wear and creep resistance than extruded Nylon 6.

Key Features:

- Good sliding properties
- Very abrasion resistant
- Resistant to many oils, greases, diesel, petrol, cleaning fluids
- Strong, tough and rigid
- Electrically insulating
- Easily machined

Nylon 66 offers the following benefits over Nylon 6:

- Higher temperature rating.
- Lower impact strength and mechanical damping.
- Higher wear resistance.
- Easier to machine.
- Moisture absorption lower than Nylon 6

Applications:

- Gear wheels
- Friction strips
- Bushes and Flanges
- Piston guides
- Castors
- Impact plates
- Friction bearings
- Conveyor screws
- Cam followers
- Rope pulleys
- Plug parts
- Damping plates
- Valve seats
- Wheels
- Insulators

Availability:

Colour:	Natural (cream) or black.
Sheet Size (mm):	3000 x 500.
Thickness (mm):	5 to 100.
Rod dia (mm):	4 to 100.
Length (mm):	3000.

Technical Information:

Information to be used as a guide only. It corresponds with our current knowledge and indicates possible applications. We cannot guarantee suitability for a specific application. Unless otherwise stated these values represent averages taken from injection moulded samples.

Properties	Unit	Test Method DIN ASTM	Result Dry	Result Wet*
Mechanical	-	-	-	-
Density	g/cm³	53479	1.14	-
Tensile strength at yield	MPa	53455	90	70
Tensile strength at break	MPa	53455	-	-
Elongation at Break	%	53455	40	150
Modulus of elasticity in tension	MPa	53457	3300	2000
Modulus of elasticity in flexure	MPa	53457	2830	-
Ball indentation hardness	MPa	53456	170	100
Impact strength (Charpy)	KJ/m²	53453	no break	-
Creep rupture strength after 1000 hours with static load	MPa	-	55	-
Time yield limit for 1% elongation after 1000 hours	MPa	-	8	-
Coefficient of friction against hardened and ground steel p+0,05 N/mm2, v=0,6 m/s	-	-	0.35 - 0.42	-
Wear conditions as above	µm/km	-	0.9	-
Thermal	-	-	-	-
Crystalline melting point	ºC	53736	255	-
Glass transition temperature	ºC	53736	50	5
Heat distortion temperature method A	ºC	ISO 75	100	-
Heat distortion temperature method B	ºC	ISO 75	>200	-
Max. service temperature short term	ºC	-	170	-
Max. service temperature long term	ºC	-	100	-
Coefficient of thermal conductivity	W/(m K)	-	0.23	
Specific heat	J/(g K)	-	1.7	
Coefficient of thermal expansion	10-5/K	-	7	
Electrical	-	-	-	
Dielectric constant at 10 (5) Hz	-	53483	3.6	5.0
Dielectric loss factor at 10(5) Hz	-	53483	0.026	0.2
Specific Volume Resistance	Ωcm	53482	10 (15)	10 (12)
Surface Resistance	O	53482	10 (13)	10 (12)
Dielectric strength 1mm	kV/mm	53481	>30	28
Tracking resistance	-	53480	CTI600	CTI600
Miscellaneous	-	-	-	-
Moisture Absorption: Equilibrium in standard atmosphere (23ºC / 50% relative humidity)	%	53714	2.8	
Water absorption at saturation at 23ºC	%	53495	8.5	

Resistance to hot water, washing soda	-	-	limited resistance	
Flamability	-	UL 94	V2	
Resistance to weathering	-	-	not resistant	

* after storage in a standard 23/50 atmosphere (DIN 50 014) to equilibrium

Also available: **Nylon 66 Glass Filled**