

Description

- PA6-GF contains 15% glass fiber, delivering excellent stiffness, creep resistance, and dimensional stability in dry conditions, making it ideal for long-term load-bearing applications without deformation or sagging. Under humid conditions, it maintains industry-leading toughness retention. Compared with high glass fiber-filled materials, it avoids the brittleness and sudden fracture issues commonly seen with excessive fiber reinforcement.
- Offers excellent aging resistance and wear resistance, along with strong interlayer bonding strength for enhanced mechanical performance.
- Capable of withstanding elevated temperatures without deformation, and provides excellent resistance to a wide range of chemicals.
- Ideal for automotive components, where it can replace certain metal parts to achieve lightweight designs, as well as for mechanical parts, connectors, fixtures, and other engineering applications.

Technical Properties

TECHNICAL DATA - FILAMENT PROPERTIES	
Appearance	Black FDM 3D Printing Filament
Melt Flow Rate	3-12g/10min
Density (25 °C)	1.15g/cm ³

TECHNICAL DATA – MECHANICAL PROPERTIES			
Mechanical Property	Test Method	SI Metric	
		XY-axis	Z-axis
Tensile Strength (MPa)	ISO 527	58	45
Tensile Modulus (MPa)	ISO 527	2860	1850
Elongation at Break (%)	ISO 527	17.8	3.2
Flexural Strength (MPa)	ISO 178	68	43
Flexural Modulus (MPa)	ISO 178	2480	1790

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Notched Impact Strength (kJ/m²)	ISO 180	14.7	N/A
Thermal Property	Test Method	SI Metric	
Heat Deflection Temperature (°C)	ISO 75	165	
Max Service Temperature (°C)	Continuous service: 20,000 h	195	
Vicat Softening Temperature (°C)	ISO 306	210	
Glass Transition Temperature (°C)	ISO 3146	68	
Flammability	UL94	HB @ 3mm	
Electrical Property	Test Method	SI Metric	
Surface Resistivity	IEC 600093	< 1.E12 ohm/sq	
Dielectric Constant	IEC 60250	/	
Physical Property	Test Method	SI Metric	
Density (g/cm³)	ISO 1183	1. 15	
Water Absorption (%)	ISO 62	2. 4	
Recommended Printing Parameters			
Items	Recommended value		
Nozzle Temperature	250°C -290°C		
Platform Temperature	80°C – 100°C		
Cooling Fan	0-60%		
Printing / storage humidity (RH)	20% RH or below		
First-layer Speed	50 mm/s		
First- Layer Infill Speed	105 mm/s		
Outer Wall Speed	50 mm/s		
Inner Wall Speed	60 mm/s		
Infill Speed	50 mm/s		
Top-layer Speed	30 mm/s		
Annealing Parameters	80–100°C oven annealing for 6–12 h, used to enhance mechanical performance and dimensional stability of printed parts.		