version 1.0
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Technical Data Sheet （TDS）

PA6-GF

ERYONE PA6-GF is a glass fiber-reinforced material based on PA6 (Nylon 6), specifically designed for high-strength and high-wear industrial applications. By incorporating glass fibers, this material significantly enhances tensile strength, rigidity, and wear resistance, making it an ideal choice for manufacturing high-load components. Its heat deflection temperature reaches approximately 180° C. Parts printed with this material not only exhibit excellent heat resistance and impact performance but also demonstrate outstanding bed adhesion and warping resistance, showing significant improvements over standard nylon materials. Whether for mechanical parts, tooling fixtures, or other high-strength functional components, ERYONE PA6-GF delivers exceptional mechanical properties and printing stability, meeting the stringent demands of the industrial sector for durability and precision

Part I: Suggests Printing Parameters

Parameter	Set up
Nozzle temperature	260-290 ℃
Bed temperature	100℃
Bed material	glass, PEI, spring steel plate
Bottom printing temperature	260-290 ℃
Sealed printing	Closed printing
Printing speed	30-100mm/s
Drying conditions	80-85℃, 12h

Part II: Physical Properties of Materials

Property	Testing Method	Unit	Typical Value
Density(g/cm³ at 21.5 ° C)	ASTM D792 (ISO 1183, GB/T 1033)	g/cm³	1.31
Heat distortion temperature(° C)	ASTM D648 0.45MPa	℃	180
Melt Index(g/10 min)	235° C, 2.16kg. D1238	g/10min	4

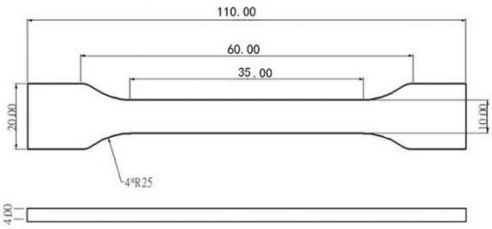
Part III: Mechanical Properties of Printed Samples

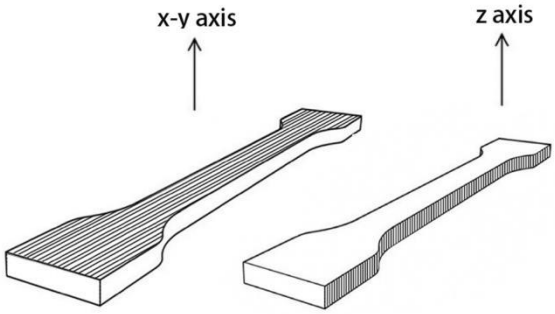
Property	Test conditions	Test standards	unit	Typical Value
Tensile strength X-Y	50mm/min	GB/T 1040.2	MPa	93
Tensile strength X-Z	50mm/min	D638	MPa	25
Tensile Modulus X-Y	50mm/min	D638	MPa	4500
Elongation X-Y	5mm/min	D638	%	8.9-10.3
Bending strength X-Y	2mm/min	D790	MPa	140-145
Bending modulus X-Y	2mm/min	D790	MPa	4240-4580
Charpy Impact strenght	4mm，23℃	D256	kJ/m2	21.3-25.5

Note: All splines are printed under the following conditions: printing temperature=280 ° C, printing speed=80mm/s, base plate 100 ° C, filling=100%, nozzle diameter=0.4mm

TENSILE TESTING SPECIMEN

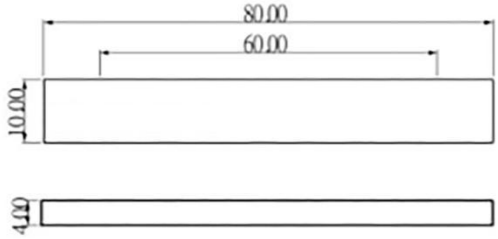
ISO 527,GB/T 1040

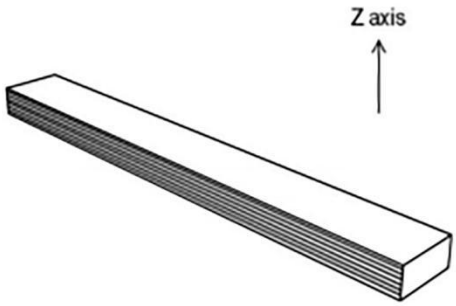




FLEXURAL TESTING SPECIMEN

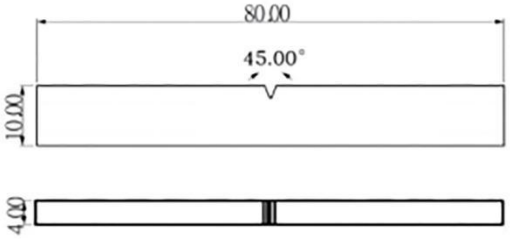
ISO 178,GB/T 9341

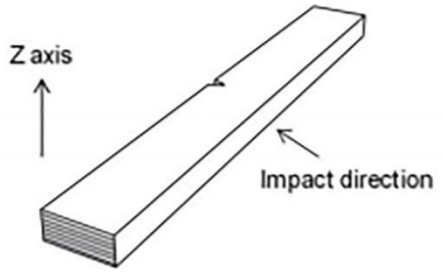




IMPACT TESTING SPECIMEN

ISO 179,GB/T 1043





Disclaimers

The values given in this data table are for reference and comparison only. They should not be used for design specifications or quality control. The actual value may vary depending on the printing conditions. The final performance of printed components depends not only on the material, but also on the component design, environmental conditions, printing conditions, and so on. Product specifications are subject to change without prior notice.