version 1.0
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Technical Data Sheet （TDS）

Glass Fiber ABS

Eryone Glass Fiber ABS is a glass fiber reinforced ABS material that supports printing in open environments. It features a balanced combination of strength, rigidity, and warping resistance, with a heat resistance temperature of up to 82°C. The printing speed can reach 150 mm/s, and it has a matte, fine sand-smooth surface texture. It offers excellent mechanical properties, thermal stability, and printing efficiency, making it suitable for 3D printing applications that require certain levels of strength, rigidity, and heat resistance, such as tooling fixtures, manufacturing jigs, enclosures, and structural components. Note: The glass fiber content is 10%.

Part I： Suggests Printing Parameters

Parameter	Set up
Nozzle temperature	240-280 ℃
Bed temperature	80-100℃
Bed material	glass, PEI, spring steel plate
Bottom printing temperature	/
Sealed printing	Sealing print quality is better, supporting open printing
Printing speed	30-150mm/s
Drying conditions	60℃, 4h

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	1.1
Vicat Softening Temperature(° C)	ASTM D1525 (ISO 306 GB/T 1633)	℃	/
Heat distortion temperature(° C)	ASTM D648 1.8MPa 0.45MPa	℃	82
Glass transition temperature (° C)	DSC, 10 ° C/min	℃	104
Melt Index(g/10 min)	220 ° C, 10kg 240 ° C, 2.16 kg	g/10min	30

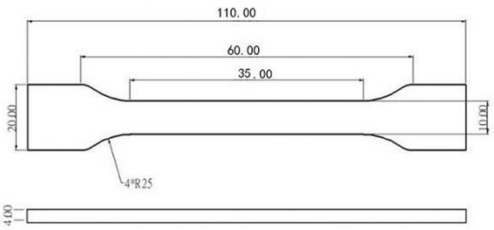
Part III: Mechanical Properties of Printed Samples

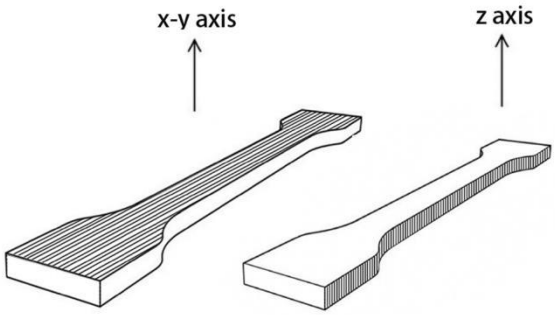
Property	Test conditions	Test standards	unit	Typical Value
Tensile strength X-Y	50mm/min	GB/T 1040.4	MPa	37.2
Elastic modulus X-Y	50mm/min	GB/T 1040.1-2006	MPa	1735.8
Elongation at break X-Y	50mm/min	GB/T 1040.4	%	2.0
Tensile strength X-Z	50mm/min	GB/T 1843	MPa	19.2±4
Elastic modulus X-Z	50mm/min	GB/T 1040.1-2006	MPa	1651.2
Elongation at break X-Z	50mm/min	GB/T 1040.4	%	1.6
Bending strength	2mm/min	GB/T 9341	MPa	57.9
Bending modulus	2mm/min	GB/T 9341	MPa	2487.4
Charpy Impact strenght	2.75J	GB/T 1843	kJ/m2	6.2

Note: All splines are printed under the following conditions: printing temperature=270 ° C, printing speed=150mm/s, base plate 90° C, filling=100%, nozzle diameter=0.4mm

TENSILE TESTING SPECIMEN

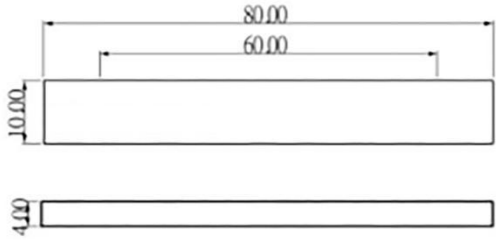
ISO 527,GB/T 1040

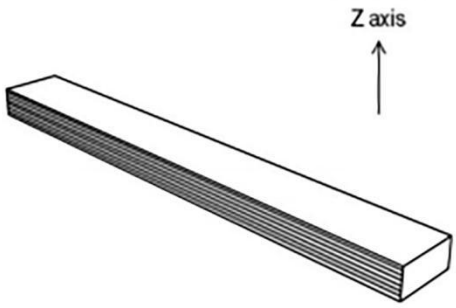




FLEXURAL TESTING SPECIMEN

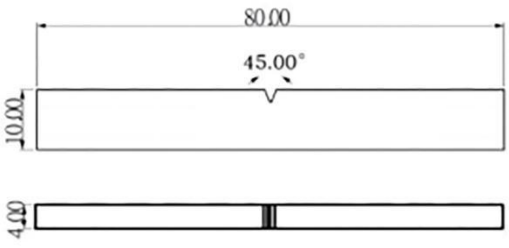
ISO 178,GB/T 9341

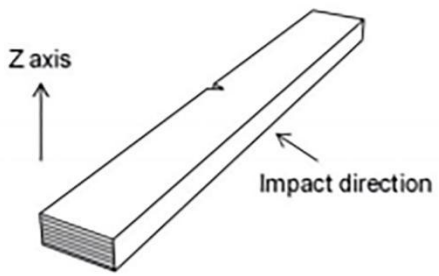




IMPACT TESTING SPECIMEN

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.