version 1.0
08/2024

Technical Data Sheet （TDS）

ASA-GF

Eryone ASA-GF is an easy-to-print 3D printing material characterized by high strength, high rigidity, weather resistance, anti-yellowing, aging resistance, and corrosion resistance. It is designed for easy shaping, with a low tendency to crack or warp, and supports open printing environments. The printed parts are robust and feature a matte, frosted surface texture. This material is ideal for applications requiring specific strength or weather resistance in end-use products, such as automotive interior components, garden furniture, and outdoor leisure structures. It contains 10% fiberglass.

Part I:Suggests Printing Parameters

Parameter	Set up
Nozzle temperature	260℃-280℃
Bed temperature	90-100℃
Bed material	glass, PEI, spring steel plate
Bottom printing temperature	260℃-280℃
Sealed printing	supports open printing, and the sealing effect is better if it is sealed
Printing speed	30-150mm/s
Drying conditions	80℃，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	1.17
Vicat Softening Temperature(° C)	ASTM D1525 (ISO 306 GB/T 1633)	℃	/
Heat distortion temperature(° C)	ASTM D648 1.8MPa 0.45MPa	℃	86
Glass transition temperature (° C)	DSC, 10 ° C/min	℃	104
Melt Index(g/10 min)	220 ° C, 10kg 240 ° C, 2.16 kg	g/10min	10

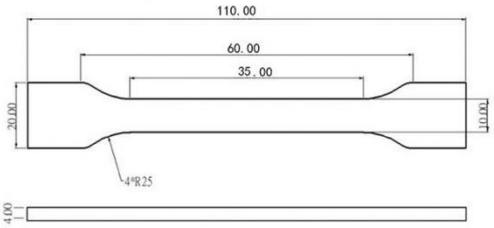
Part III:Mechanical Properties of Printed Samples

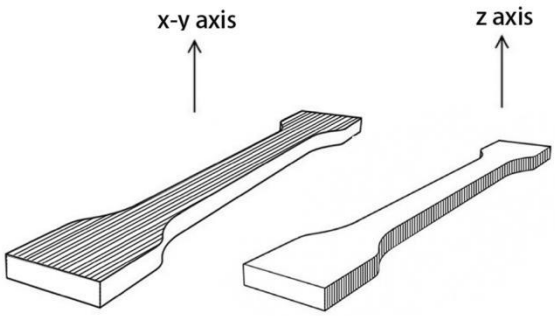
Property	Test conditions	Test standards	unit	Typical Value
Tensile strength X-Y	50mm/min	GB/T 1040.4	MPa	34.2
Tensile modulus X-Y	50mm/min	GB/T 1040.1-2006	MPa	1857.9
Elongation at breakX-Y	50mm/min	GB/T 1040.4	MPa	4.3
Tensile strength X-Z	50mm/min	GB/T 1843	MPa	21.2
Tensile modulus X-Z	50mm/min	GB/T 1040.1-2006	MPa	1593.1
Elongation at breakX-Z	50mm/min	GB/T 1040.2	%	2.1
Bending strength	2mm/min	GB/T 9341	MPa	54.3
Bending modulus	2mm/min	GB/T 9341	MPa	2623.5
Charpy Impact strenght	2.75J	GB/T 1043.1-2008	kJ/m2	9.6

Note: All splines are printed under the following conditions: printing temperature=270 ° C, printing speed=80mm/s, base plate 95 ° C, filling=100%, nozzle diameter=0.4mm

TENSILE TESTING SPECIMEN

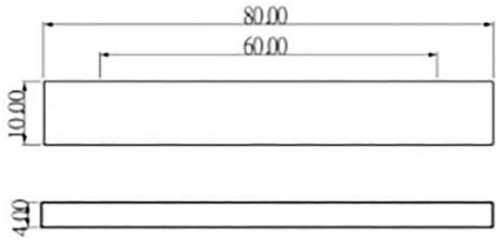
ISO 527,GB/T 1040

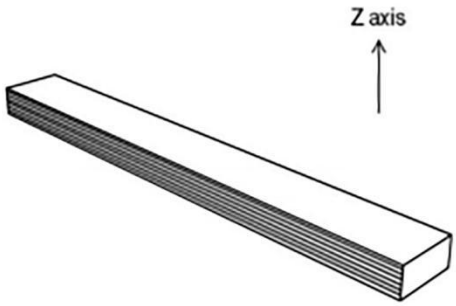




FLEXURAL TESTING SPECIMEN

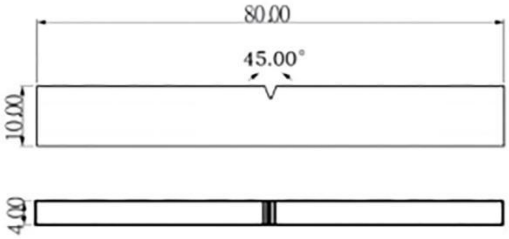
ISO 178,GB/T 9341

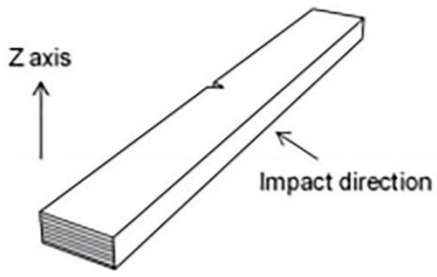




IMPACT TESTING SPECIMEN

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.