version 1.0
08/2024

Technical Data Sheet （TDS）

Hyper Speed PETG

Eryone-Hyper Speed PETG filament， It is a high-speed printing filament that can significantly improve the printing efficiency of models without compromising print quality. The printing performance of high-speed PETG is better than that of ordinary PETG filament, and it has higher adaptability to printer settings. It can achieve excellent printing results without fine-tuning parameters. Due to the optimization of the formula, high-speed PETG eliminates the problems of nozzle sticking and material leakage, making printing smoother and details clearer. High speed PETG can maintain smooth texture and consistent luster at any speed. High speed PETG has water resistance and sun protection, and can print some outdoor products.

Part I： Suggests Printing Parameters

Parameter	Set up
Nozzle temperature	240-280 ℃
Bed temperature	75-80℃
Bed material	glass, PEI, spring steel plate
Bottom printing temperature	240-280 ℃
Sealed printing	supports open printing, and the sealing effect is better if it is sealed
Printing speed	30-600mm/s
Drying conditions	65-75℃, 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	1.28
Vicat Softening Temperature(° C)	ASTM D1525 (ISO 306 GB/T 1633)	℃	70
Heat distortion temperature(° C)	ASTM D648 1.8MPa 0.45MPa	℃	69
Melt Index(g/10 min)	220 ° C, 10kg 240 ° C, 2.16 kg	g/10min	28.2±2.7

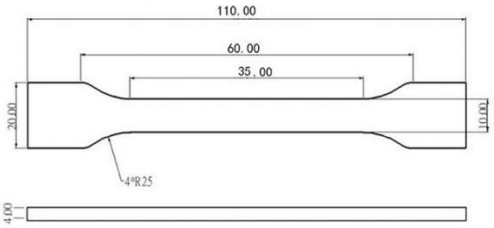
Part III: Mechanical Properties of Printed Samples

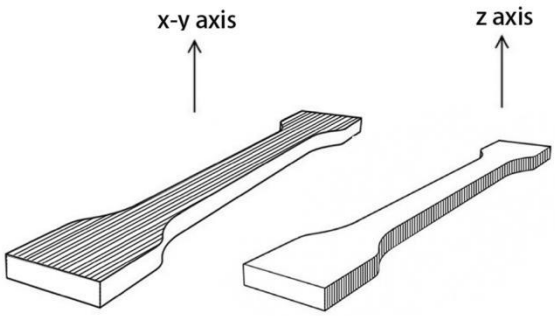
Property	Test conditions	Test standards	unit	Typical Value
Tensile strength X-Y	50mm/min	GB/T 1040.4	MPa	50.1
Elastic modulus X-Y	50mm/min	GB/T 1040.1-2006	MPa	1332.1
Elongation at break X-Y	50mm/min	GB/T 1040.4	%	4.1
Tensile strength X-Z	50mm/min	GB/T 1843	MPa	21.7±2
Elastic modulus X-Z	50mm/min	GB/T 1040.1-2006	MPa	1034.2
Elongation at break X-Z	50mm/min	GB/T 1040.2	%	2.7
Bending strength	2mm/min	GB/T 9341	MPa	66.1
Bending modulus	2mm/min	GB/T 9341	MPa	1742.3
Charpy Impact strenght	2.75J	GB/T 1043.1-2008	kJ/m2	1.25

Note: All splines are printed under the following conditions: printing temperature=240 ° C, printing speed=100mm/s, base plate 80 ° C, filling=100%, nozzle diameter=0.4mm

TENSILE TESTING SPECIMEN

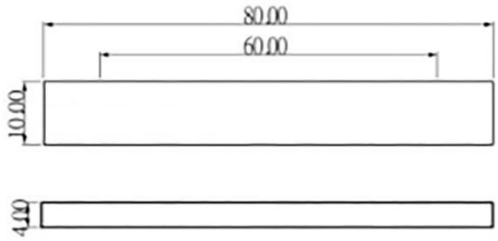
ISO 527,GB/T 1040

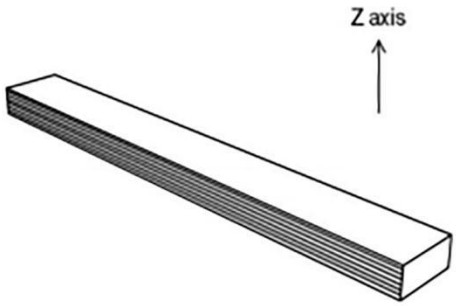




FLEXURAL TESTING SPECIMEN

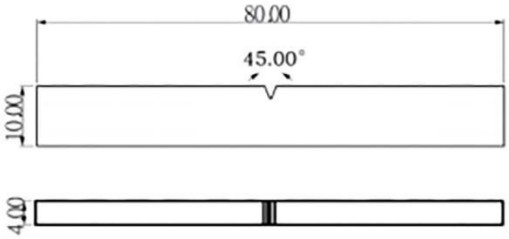
ISO 178,GB/T 9341

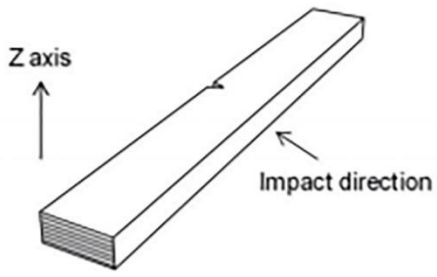




IMPACT TESTING SPECIMEN

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.