

Technical Data Sheet (TDS)

Glow in the dark PLA

Eryone-Glow in the dark PLA filament is a special material that emits light in the dark. It absorbs sunlight or daylight and can continuously release a captivating glow effect. This material is not only suitable for signage but also for printing toys and decorations, creating a unique atmosphere. Additionally, it has excellent printing performance, produces outstanding shaping results, and does not create bubbles.

Part I: Suggests Printing Parameters

Parameter	Set up
Nozzle temperature	180°C-220°C
Bed temperature	55-70°C
Bed material	glass, PEI, spring steel plate
Bottom printing temperature	190°C-220°C
Sealed printing	open printing/closed printing
Printing speed	30-500mm/s
Drying conditions	65°C-75°C, 12H

Part II: Physical Properties of Materials

Property	Testing Method	Unit	Typical Value
Density(g/cm ³ at 21.5 ° C)	ASTM D792 (ISO 1183, GB/T 1033)	g/cm ³	1.25
Vicat Softening Temperature(° C)	ASTM D1525 (ISO 306 GB/T 1633)	°C	54
Melt Index(g/10 min)	220 ° C, 10kg 240 ° C, 2.16 kg	g/10min	6

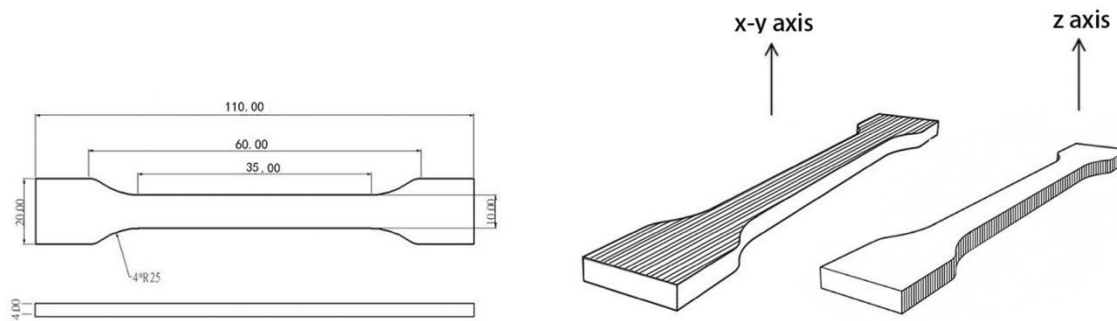
Part three: Mechanical Properties of Printed Samples

Property	Test conditions	Test standards	unit	Typical Value
Tensile strength X-Y	50mm/min	GB/T 1040.4	MPa	43.2
Elastic modulus X-Y	50mm/min	GB/T 1040.1-2006	MPa	1987.2
Elongation at break X-Y	50mm/min	GB/T 1040.4	%	1.7
Tensile strength X-Z	50mm/min	GB/T 1843	MPa	25.6
Elastic modulus X-Z	50mm/min	GB/T 1040.1-2006	MPa	1851.7
Elongation at break X-Z	50mm/min	GB/T 1040.4	%	1.4
Bending strength	2mm/min	GB/T 9341	MPa	72.3
Bending modulus	2mm/min	GB/T 9341	MPa	2987.7
Charpy Impact strenght	2.75J	GB/T 1843	kJ/m2	3.5

Note: All splines are printed under the following conditions: printing temperature=210° C, printing speed=80mm/s, base plate 60 ° C, filling=100%, nozzle diameter=0.4mm

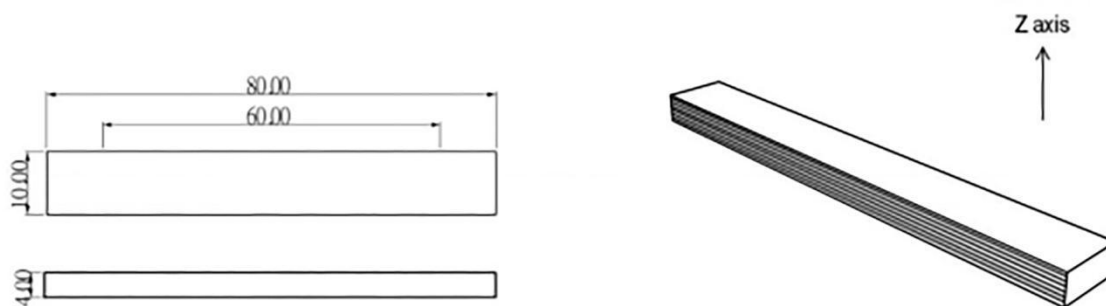
TENSILE TESTING SPECIMEN

ISO 527,GB/T 1040



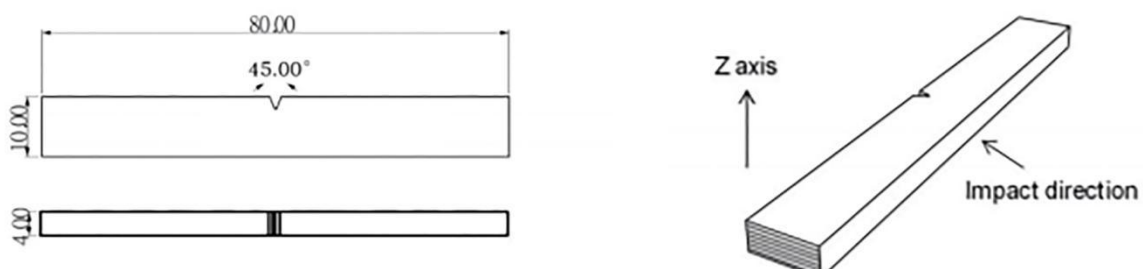
FLEXURAL TESTING SPECIMEN

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.