

# 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 <sup>3</sup> at 21.5 ° C)	ASTM D792 (ISO 1183, GB/T 1033)	g/cm <sup>3</sup>	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

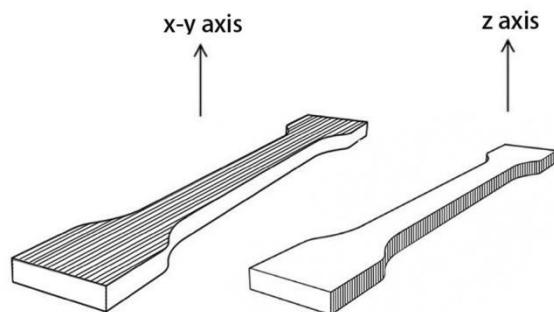
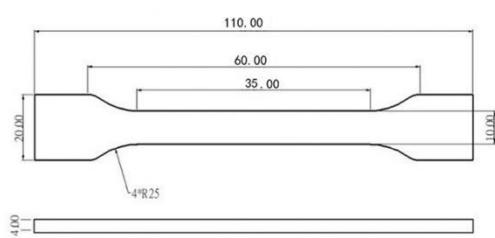
### Part three: Mechanical Properties of Printed Samples

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 strength	2.75J	GB/T 1843	kJ/m <sup>2</sup>	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

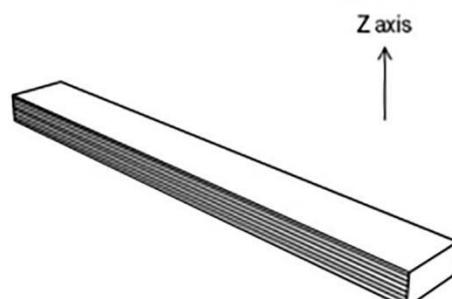
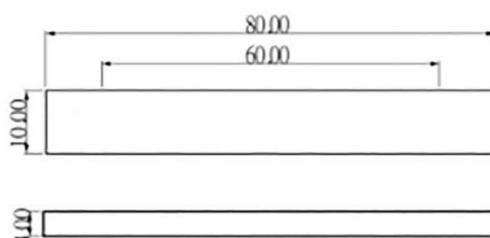
## TENSILE TESTING SPECIMEN

ISO 527,GB/T 1040



## FLEXURAL TESTING SPECIMEN

ISO 178,GB/T 9341



## IMPACT TESTING SPECIMEN

ISO 179,GB/T 1043

