

eStars-PLA

Technical Data Sheet

The product is modified based on PLA material, in addition it has gorgeous luminous star appearance effect. PLA is an environmentally friendly material and easy to print.

Material Status	Mass Production
Characteristics	<ul style="list-style-type: none"> • Gorgeous luminous rainbow appearance effect • Excellent printability
Applications	<ul style="list-style-type: none"> • Toys • Decoration
Form	<ul style="list-style-type: none"> • Filament
Processing method	<ul style="list-style-type: none"> • 3D Print, FDM Print

	testing method	Typical value
Physical Properties		
Density	GB/T 1033	1.2 g/cm ³
Melt Flow Index	GB/T 3682	3.5 (190°C/2.16kg)
Mechanical Properties		
Tensile Strength	GB/T 1040	72 MPa
Elongation at Break	GB/T 1040	11.8 %
Flexural Strength	GB/T 9341	90 MPa
Flexural Modulus	GB/T 9341	1915 MPa
IZOD Impact Strength	GB/T 1843	5.4 kJ/m ²
Thermal Properties		
Heat distortion Temperature	GB/T 1634	53 °C (0.45Mpa)
Continuous Service Temperature	IEC 60216	N/A
Maximum (short term) Use Temperature		N/A
Electrical Properties		
Insulation Resistance	DIN IEC 60167	N/A
Surface Resistance	DIN IEC 60093	N/A

Wuhan University Building A403-I,A901,No.6 Yuexing 2 Road,Nanshan District,Shenzhen,Guangdong

China

Tel +86 755 86581960

fax +86 755 26031982

Email: bright@brightcn.net

www.esun3d.net

Recommended printing parameters

Extruder Temperature	210 - 230°C
Build Platform Temperature	45-60°C
Fan Speed	100%
Printing Speed	40 - 100mm/s

Based on 0.4 mm nozzle and Simplify 3D v.4.1.2. Printing conditions may vary with different nozzle diameters

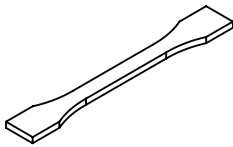
Drying Recommendations

N/A

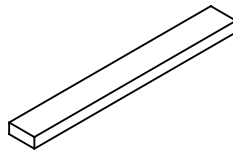
Precautions:

- 1.Luminous PLA is easy to grind nozzle and extruder gear, it is recommended to use steel nozzle or ruby nozzle, hardened steel extruder gear will be perfect , if the nozzle is clogging , replace the throat and nozzle
2. The luminous effect is related to the intensity and time of light source. The longer the irradiation time, the better the luminous effect

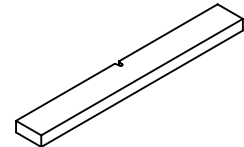
Mechanical Properties



Tensile testing specimen GB/T 1040



Flexural testing specimen GB/T 9341



Impact testing specimen GB/T 1043

The physical properties, mechanical properties, thermal properties, and electrical properties of the filament are obtained based on the injection molding spline test.

Print test condition:

Extruder Temperature	210 -230°C
Build Platform Temperature	45°C
Outline/Perimeter Shells	4
Top/Bottom Layers	4
Infill Percentage	20%
Fan speed	100%
Printing speed	40mm/s

Based on 0.4 mm nozzle and Simplify 3D v.4.1.2.

Notice

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