

# ePLA-Metal

## Technical Data Sheet

The model has a metallic luster texture, which can present a thick metallic appearance without the need for spraying, polishing, and post-processing. The surface is smooth and does not show layer patterns; Compared to other materials, the support is easier to peel off from the surface of the model, and the contact surface is smooth and flat; This product is based on PLA material modification and has the characteristics of easy printing of PLA.

Material Status	Mass Production
Characteristics	<ul style="list-style-type: none"> <li>• Metal texture</li> <li>• Easily peel off</li> <li>• Hard to break</li> </ul>
Applications	<ul style="list-style-type: none"> <li>• COSPLAY</li> </ul>
Form	<ul style="list-style-type: none"> <li>• Filament</li> </ul>
Processing method	<ul style="list-style-type: none"> <li>• 3D Print, FDM Print</li> </ul>

	testing method	Typical value
<b>Physical Properties</b>		
Density	GB/T 1033	1.225 g/cm <sup>3</sup>
Melt Flow Index	GB/T 3682	35.4 (190°C/2.16kg)
<b>Mechanical Properties</b>		
Tensile Strength	GB/T 1040	63.16 MPa
Elongation at Break	GB/T 1040	11.16 %
Flexural Strength	GB/T 9341	92.18 MPa
Flexural Modulus	GB/T 9341	3274 MPa
IZOD Impact Strength	GB/T 1843	5.07 kJ/m <sup>2</sup>
<b>Thermal Properties</b>		
Heat distortion Temperature	GB/T 1634	53 °C (0.45Mpa)
Continuous Service Temperature	IEC 60216	N/A
Maximum (short term) Use Temperature		N/A
<b>Electrical Properties</b>		
Insulation Resistance	DIN IEC 60167	N/A
Surface Resistance	DIN IEC 60093	N/A

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### Recommended printing parameters

Extruder Temperature	190 - 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

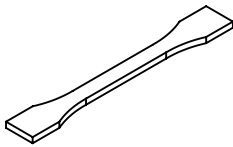
### Drying Recommendations

N/A

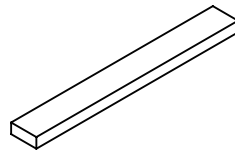
### Precautions:

When slicing, it is best to turn on the Z seam alignment and starting point alignment functions, turn off the Z-axis lift and exit, avoid passing through the shell when idling, optimize the slicing printing path, and appropriately reduce the printing speed to achieve the best printing effect.

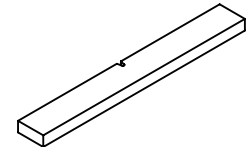
### Mechanical Properties



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	190-230°C
Build Platform Temperature	45-60°C
Outline/Perimeter Shells	4
Top/Bottom Layers	4
Infill Percentage	20%
Fan speed	100%
Printing speed	40-100mm/s

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

### Notice

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