

# eSilk-Rainbow

Technical Data Sheet

The model has silk luster texture, The printing surface is smooth without layer patterns. It modified from PLA material ,easy to print as PLA.

Material Status	Mass Production
Characteristics	<ul style="list-style-type: none"> <li>• Shiny and silky rainbow color.</li> <li>• Smooth surface.</li> <li>• Easy to print as PLA.</li> <li>• High toughness.</li> </ul>
Applications	<ul style="list-style-type: none"> <li>• Toys</li> <li>• Decoration</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	1.21	g/cm <sup>3</sup>
Melt Flow Index	GB/T 3682	4.8	190°C/2.16kg
<b>Mechanical Properties</b>			
Tensile Strength	GB/T 1040	52	MPa
Elongation at Break	GB/T 1040	14.4	%
Flexural Strength	GB/T 9341	65	MPa
Flexural Modulus	GB/T 9341	1447	MPa
IZOD Impact Strength	GB/T 1843	5.86	kJ/m <sup>2</sup>
<b>Thermal Properties</b>			
Heat distortion Temperature	GB/T 1634	50	°C
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

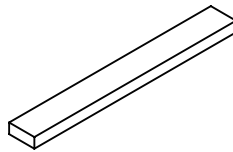
### Precautions:

Reducing overhang angle structure in the model or the speed in printing to keep the cooling.

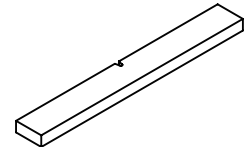
### Mechanical Properties



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 line are obtained based on the injection molding spline test.

### Print test condition:

Extruder Temperature	190-230°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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