

ePLA-Silk Rainbow

Technical Data Sheet

The ePLA silk rainbow has a silky luster and texture, while the various color variations give the model a brilliant and dazzling appearance, just like silk draped with rainbow colors. The surface of the model is smooth without any layering; Supporting materials are easier to peel off from the surface of the model compared to other materials. This product is based on PLA material modification and has the characteristic of easy printing of PLA.

Material Status	Mass Production	
Characteristics	<ul style="list-style-type: none"> • Silk luster texture • Colorful rainbow appearance 	<ul style="list-style-type: none"> • smooth surface • Excellent printability
Applications	<ul style="list-style-type: none"> • Cultural Creativity 	<ul style="list-style-type: none"> • Animation Industry
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	1.21	g/cm ³
Mechanical Properties			
Tensile Strength	GB/T 1040	11.1	MPa
Elongation at Break	GB/T 1040	3.05	%
Flexural Strength	GB/T 9341	75.34	MPa
Flexural Modulus	GB/T 9341	2023	MPa
IZOD Impact Strength	GB/T 1843	4.58	kJ/m ²
Thermal Properties			
Heat distortion Temperature	GB/T 1634	55.85	°C
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	

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Recommended printing parameters

Extruder Temperature	190- 230°C
Build Platform Temperature	45-60°C
Fan Speed	100%
Printing Speed	40 - 300mm/s

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

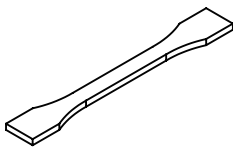
Drying Recommendations

N/A

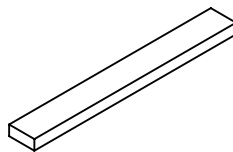
Precautions:

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

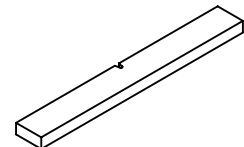
Mechanical Properties



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	220°C
Build Platform Temperature	45°C
Outline/Perimeter Shells	2
Top/Bottom Layers	3
Infill Percentage	100%
Fan speed	100%
Printing speed	130mm/s

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

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