

ePLA-ST

Technical Data Sheet

High impact resistance, high elongation at break, high bonding strength and high printing accuracy. The toughness is better than PETG, and it has good printability, suitable for printing mechanical parts with toughness and precision requirements.

Material Status	Mass Production
Characteristics	<ul style="list-style-type: none"> • High impact resistance • ePLA-ST Better Toughness than PETG • Excellent printability
Applications	<ul style="list-style-type: none"> • Mechanical engineering • The automobile industry • Electrical and electronic
Form	• Filament
Processing method	• 3D Print, FDM Print

	testing method	Typical value	
Physical Properties			
Density	GB/T 1033	1.25	g/cm ³
Melt Flow Index	GB/T 3682	3.2	190°C/2.16kg
Mechanical Properties			
Tensile Strength	GB/T 1040	34.3	MPa
Elongation at Break	GB/T 1040	90	%
Flexural Strength	GB/T 9341	43	MPa
Flexural Modulus	GB/T 9341	1477	MPa
IZOD Impact Strength	GB/T 1843	63	kJ/m ²
Thermal Properties			
Heat distortion Temperature	GB/T 1634	52	°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	200- 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

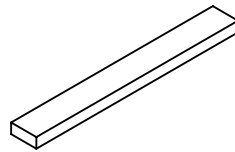
Precautions:

Remote printing needs to reduce the printing speed (≤ 40 mm/s) to prevent potential feeding issue

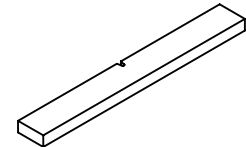
Mechanical Properties



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.

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