

# ePA

## Technical Data Sheet

Development based on nylon 6/66 copolymer; Self-lubricating wear resistance makes it suitable for printing gears; High toughness and impact resistance, with an elongation at break of up to 175%, which can print strong and durable parts with high fracture resistance; Low shrinkage, not easy to warp and crack when printing.

Material Status	Mass Production
Characteristics	<ul style="list-style-type: none"> <li>• High toughness</li> <li>• High impact resistance</li> <li>• Self-lubricating wear-resisting</li> <li>• Excellent printability</li> </ul>
Applications	<ul style="list-style-type: none"> <li>• Machinery</li> <li>• Automobile</li> <li>• Electrical and electronic</li> <li>• Aerospace</li> <li>• Consumption goods</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	1.12 g/cm <sup>3</sup>
Melt Flow Index	GB/T 3682	12.3 (230°C/2.16kg)
<b>Mechanical Properties</b>		
Tensile Strength	GB/T 1040	52.45 MPa
Elongation at Break	GB/T 1040	175.32 %
Flexural Strength	GB/T 9341	58 MPa
Flexural Modulus	GB/T 9341	1370 MPa
IZOD Impact Strength	GB/T 1843	18.4 kJ/m <sup>2</sup>
<b>Thermal Properties</b>		
Heat distortion Temperature	GB/T 1634	50 (°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	250 - 290°C
Build Platform Temperature	70-90°C
Fan Speed	0%
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

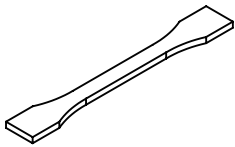
### Drying Recommendations

N/A

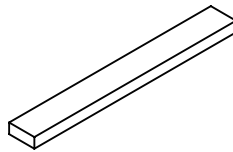
### Notes

Drying (70°C/> 12 h) before printing to achieve the best printing effect, it is recommended to use with eBOX when printing.

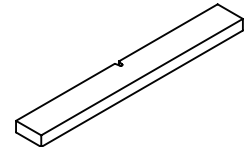
### Mechanical Properties



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	240-290°C
Build Platform Temperature	80°C
Outline/Perimeter Shells	4
Top/Bottom Layers	4
Infill Percentage	20%
Fan speed	0%
Printing speed	40mm/s

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

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