

PLA-Matte Dual

Technical Data Sheet

ePLA-Matte Dual is an outstanding ePLA printing material with a matte surface finish. Its unique one-line dual-color design showcases the layering of colors while maintaining the separation of colors, making the model's appearance rich yet clear. The surface is delicate, with no obvious layer lines, easy to use, and does not require sealed printing. It also has a low shrinkage rate, which makes it less likely to warp or crack, making it an ideal choice for printing large-sized models. It is easy to remove from the model's surface, has high line strength, and is not prone to brittleness, ensuring the continuity and stability of long printing times and avoiding the trouble of nozzle clogging. These characteristics make ePLA-Matte Dual very suitable for the verification of early concept models and the production of rapid prototypes.

Material Status	Mass Production
Characteristics	- Green environmental protection - Cost-effective - One line dual color - Support easy to peel off - Excellent printability - High-speed printing - Matte surface effect - Low density - Not easy to break
Applications	- Decoration - Cosplay
Form	Filament
Processing method	3D Print, FDM Print

	Testing method	Typical value
Physical Properties		
Density	GB/T 1033	1.174 g/cm ³
Melt Flow Index	GB/T 3682	2.1 (190°C/2.16kg)
Mechanical Properties		
Tensile Strength	GB/T 1040	13.58 MPa
Elongation at Break	GB/T 1040	39 %
Flexural Strength	GB/T 9341	56.72 MPa
Flexural Modulus	GB/T 9341	2786.4 MPa
IZOD Impact Strength	GB/T 1843	3.41 (kJ/ m ²)
Thermal Properties		
Heat distortion Temperature	GB/T 1634	54 (°C,0.45MPa)
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

Recommended printing parameters

Extruder Temperature	215-230°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

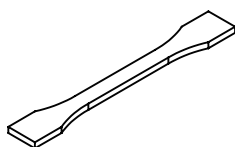
Drying Recommendations

N/A

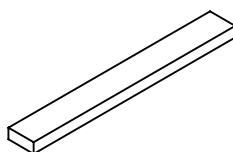
Notes

The ePLA-Matte filament is softer than others, and the extruder's tension adjustment shall not be too tight, so as not to affect the printing.

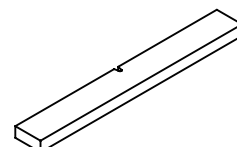
Mechanical Properties



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	215-230°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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