PETG Basic

Technical Data Sheet

PETG-Basic is an economical PETG product that combines the advantages of PLA and ABS. It has a wide range of colors and offers excellent printability,high toughness, and a good surface gloss. The dimensions are stable and do not shrink or warp during printing

Basic Information

Characteristics	• High cost performence • Excellent printing performance	• High toughness and high brightness • High speed printing
Applications	• Lamps and lanterns • Electronic appliances	• Cosmetic containers • Stationery
Processing Method	• 3D Printing	• FDM Print

Physical Properties	Testing Method	Data
Density	GB/T 1033	1.27 g/cm3
Melt Flow Index	GB/T 3682	28 (250℃，2.16KG)

Thermal Properties	Testing Method	Data
Heat Distortion Temperature	GB/T 1634	73.8 (xy轴) /68.1 (z轴) (0.45Mpa)
Glass Transition Temperature	/	/
Continuous Service Temperature	IEC 60216	N/A
Maximum (short term) Use Temperature		N/A

Electrical Properties	Testing Method	Data
Insulation Resistance	DIN IEC 60167	N/A
Surface Resistance	DIN IEC 60093	N/A

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Mechanical Properties	Testing Method	Data
Tensile Strength (X-Y)	GB/T 1040	68.41MPa
Tensile Strength (Z)	GB/T 1040	35.84MPa
Elongation at Break (X-Y)	GB/T 1040	7.56%
Elongation at Break (Z)	GB/T 1040	3.17%
Flexural Strength (X-Y)	GB/T 9341	100.2MPa
Flexural Strength (Z)	GB/T 9341	59.7MPa
Flexural Modulus (X-Y)	GB/T 9341	2636.66MPa
Flexural Modulus (Z)	GB/T 9341	2207.6MPa
IZOD Impact Strength (X-Y)	GB/T 1843	2.28kJ/m2
IZOD Impact Strength (Z)	GB/T 1843	2.06kJ/m2
Young's Modulus (X-Y)		
Young's Modulus (Z)		

Chemical Properties	Data
Acid and Alkali Resistance	/
Grease Resistance	/
UV Resistance	/
Water Repellency	/

Recommended Printing Parameters	Data
Drying Preparation	60℃
Extruder Temperature	250±5℃
Nozzle Size	0.4mm
Nozzle Temperature	250℃
Build Platform Type	PEI
Build Platform Temperature	70℃
Build Platform Preparation	Glue spraying
Fan Speed	100%
Printing Speed	0-300mm/s

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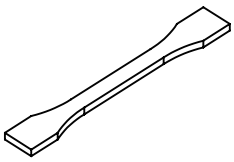
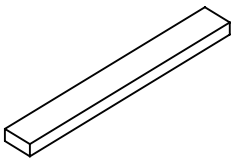
Printing Tips

1. When slicing, it is recommended to enable the Z-seam alignment and starting point alignment functions, disable the Z-axis lift and exit feature, avoid traversing through the shell during idle movements, optimize the slicing printing path, and appropriately reduce the printing speed in order to achieve optimal print quality.

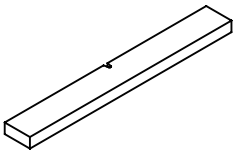
Test Conditions of Mechanical Properties



Tensile testing specimen GB/T 1040



Flexural testing specimen GB/T 9341



Impact testing specimen GB/T 1043

The performance of the filament is evaluated based on standard samples printed by eSUN, while the actual printing performance is influenced by various factors such as printer type, printing parameters, and print environment.

Printing Test Conditions:

Extruder Temperature	255℃
Build Platform Temperature	70℃
Outer Layer Number	2
Top/Bottom Layer Number	3
Infill Density	100%
Fan Speed	100%
Maximum Volumetric Flow Rate	4mm³/s

*Based on Bambu P1S 0.4 mm nozzle and Orcaslicer 2.1.0 Beta.

Notice

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