Bambu Filament

Technical Data Sheet V1.0

Support for PA/PET

• Basic Info

Bambu Support for PA/PET is a breakaway support specially developed for PA, PET and their carbon fiber reinforced composites. The material is ideal for prints that require support material but also needs to be ready for immediate use after printing. Bambu Support for PA/PET bonds weakly with PAHT-CF and PET-CF by acting as an interface, making it easy to peel away cleanly by hand or tools and requires no further post-processing. With these features, Bambu Support for PA/PET can significantly reduce your post-processing time and improve overall productivity.

• Specifications

Subjects	Data
Diameter	1.75 mm
Net Filament Weight	0.5 kg
Spool Material	PC + ABS (Temperature resistance 90 °C)
Spool Size	Diameter: 200 mm; Height: 67 mm

• Recommended Printing Settings

Subjects	Data
Drying Settings before Printing	80 °C, 8 - 12 h
Printing and Storage Humidity	< 20% RH (Sealed, with desiccant)
Nozzle Temperature	260 - 290 °C
Bed Type	Engineering Plate, High Temperature Plate or Textured PEI Plate
Bed Surface Preparation	PVP Glue
Bed Temperature	80 - 100 °C
Cooling Fan	0 - 60%
Printing Speed	< 100 mm/s
Retraction Length	0.8 - 1.4 mm
Retraction Speed	20 - 40 mm/s
Chamber Temperature	45 - 60 °C

• Properties

Bambu Lab has tested some performances of Support for PA/PET material, mainly including physical and chemical properties. And since this material is only used to print supporting structures, not any complete print, the mechanical properties are not important and not supplied here. Typical values are listed as followed:

Physical Properties		
Subjects	**Testing Methods**	**Data**
Density	ISO 1183	1.17 g/cm³
Melt Index	280 °C, 2.16 kg	29.2 ± 2.1 g/10 min
Melting Temperature	DSC, 10 °C/min	255 °C
Glass Transition Temperature	DSC, 10 °C/min	N / A
Crystallization Temperature	DSC, 10 °C/min	N / A
Vicar Softening Temperature	ISO 306, GB/T 1633	N / A
Heat Deflection Temperature	ISO 75 1.8 MPa	N / A
Heat Deflection Temperature	ISO 75 0.45 MPa	N / A
Saturated Water Absorption Rate	25 °C, 55% RH	1.23%

Mechanical Properties		
Subjects	**Testing Methods**	**Data**
Young's Modulus (X-Y)	ISO 527, GB/T 1040	N / A
Young's Modulus (Z)	ISO 527, GB/T 1040	N / A
Tensile Strength (X-Y)	ISO 527, GB/T 1040	N / A
Tensile Strength (Z)	ISO 527, GB/T 1040	N / A
Breaking Elongation Rate (X-Y)	ISO 527, GB/T 1040	N / A
Breaking Elongation Rate (Z)	ISO 527, GB/T 1040	N / A
Bending Modulus (X-Y)	ISO 178, GB/T 9341	N / A
Bending Modulus (Z)	ISO 178, GB/T 9341	N / A
Bending Strength (X-Y)	ISO 178, GB/T 9341	N / A
Bending Strength (Z)	ISO 178, GB/T 9341	N / A
Impact Strength (X-Y)	ISO 179, GB/T 1043	N / A
Impact Strength (Z)	ISO 179, GB/T 1043	N / A

Other Physical and Chemical Properties	
Subjects	**Data**
Odor	Odorless
Composition	Nylon

Skin Hazards	Not available
Chemical Stability	Stable under normal storage and handling conditions
Solubility	Insoluble in water
Resistance to Acid	Not resistant
Resistance to Alkali	Not resistant
Resistance to Organic Solvent	Not resistant to some organic solvents
Resistance to Oil and Grease	Resistant to most kinds of oil and grease
Flammability	Flammable and self-extinguishing in the air
Combustion Products	Water, carbon oxides, nitrogen oxides
Odor of Combustion Products	Pungent odor

- ## Disclaimer

The performance values are tested by standard samples at Bambu Lab, and the values are for design reference and comparison only. Actual 3D printing model performance is related to many other factors, including printers, printing conditions, printing models, printing parameters, etc.

In the process of using Bambu Lab 3D printing filaments, users are responsible for the legality, safety, and performance indicators of printing. Bambu Lab is not responsible for the use of materials and scenarios and is not responsible for any damage that occurs in the process of using our filaments.