

# Bambu Filament Guide

This filament guide offers a comprehensive comparison of properties, application, and printing requirements for Bambu filaments, aiming to help users select the best-suited material for needs.

For detailed technical information, download filament Technical data sheets (TDS) on product pages.

## Shop All Filaments

		PLA	PETG	ABS	ASA	PC	TPU 95A	PLA-CF	PETG-CF	PET-CF	PAHT-CF	
Filament Properties	<b>Toughness</b> Impact Strength - XY	26.6 kJ/m²	52.7 kJ/m²	39.3 kJ/m²	41.0 kJ/m²	29.5 kJ/m²	125.2 kJ/m²	23.2 kJ/m²	41.2 kJ/m²	36.0 kJ/m²	57.5 kJ/m²	
	<b>Strength</b> Bending Strength - XY	76 MPa	81 MPa	68 MPa	74 MPa	112 MPa	N / A	96 MPa	83 MPa	149 MPa	140 MPa	
	<b>Stiffness</b> Bending Modulus - XY	2750 MPa	1790 MPa	1880 MPa	1920 MPa	2080 MPa	N / A	3700 MPa	2890 MPa	5080 MPa	4120 MPa	
	<b>Layer Adhesion</b> Impact Strength - Z	13.8 kJ/m²	13 kJ/m²	7.4 kJ/m²	4.9 kJ/m²	9.0 kJ/m²	27.2 kJ/m²	7.8 kJ/m²	10.7 kJ/m²	4.5 kJ/m²	13.3 kJ/m²	
	<b>Heat Resistance</b> HDT, 0.45 MPa	57 °C	69 °C	87 °C	100 °C	117 °C	N / A	55 °C	55 °C	205 °C	194 °C	
	<b>Saturated Water Absorption Rate</b> 25 °C, 55% RH	0.43%	0.42%	0.65%	0.45%	0.25%	1.16%	0.42%	0.3%	0.37%	0.88%	
Pre-printing Preparation	<b>Dry Out Before Use</b>	Optional	Optional	Optional	Optional	<span>Required</span>	<span>Required</span>	Optional	Optional	<span>Required</span>	<span>Required</span>	
	<b>Drying Condition</b>	55 °C, 8 hours	65 °C, 8 hours	80 °C, 8 hours	80 °C, 8 hours	80 °C, 8 hours	70 °C, 8 hours	60 °C, 8 hours	65 °C, 8 hours	80 °C, 8 ~12 hours	80 °C, 8 ~12 hours	
	<b>AMS Compatibility</b>	<span>✓</span>	<span>✓</span>	<span>✓</span>	<span>✓</span>	<span>✓</span>	<span>✗</span>	<span>✓</span>	<span>✓</span>	<span>✗</span>	<span>✓</span>	
	<b>Nozzle Size/Material</b>	All Size/Material	All Size/Material	All Size/Material	All Size/Material	All Size/Material	0.4 / 0.6 / 0.8 mm Hardened Steel / Stainless Steel	0.4 / 0.6 / 0.8 mm Hardened Steel	0.4 / 0.6 / 0.8 mm Hardened Steel	0.4 / 0.6 / 0.8 mm Hardened Steel	0.6 (recommended) / 0.4 / 0.8 mm Hardened Steel	
	<b>Build Plate</b>	Cool Plate High Temperature Plate Textured PEI Plate	Engineering Plate High Temperature Plate Textured PEI Plate	Engineering Plate High Temperature Plate Textured PEI Plate	Engineering Plate High Temperature Plate Textured PEI Plate	Engineering Plate High Temperature Plate Textured PEI Plate	Engineering Plate High Temperature Plate Textured PEI Plate	Cool Plate Engineering Plate High Temperature Plate Textured PEI Plate	Cool Plate Engineering Plate High Temperature Plate Textured PEI Plate	Engineering Plate High Temperature Plate Textured PEI Plate	Engineering Plate High Temperature Plate Textured PEI Plate	Engineering Plate High Temperature Plate Textured PEI Plate
	<b>Adhesion Methods</b>	Bambu Liquid Glue Glue Stick	Bambu Liquid Glue Glue Stick	Bambu Liquid Glue Glue Stick	Bambu Liquid Glue Glue Stick	Glue Stick	Bambu Liquid Glue Glue Stick	Bambu Liquid Glue Glue Stick	Bambu Liquid Glue Glue Stick	Bambu Liquid Glue Glue Stick	Glue Stick	Glue Stick
Printer Settings	<b>Print with Enclosure</b>	<span>✗</span>	<span>✗</span>	<span>✓</span>	<span>✓</span>	<span>✓</span>	<span>✗</span>	<span>✗</span>	<span>✗</span>	<span>✗</span>	<span>✓</span>	
	<b>Seal with Desiccant</b>	<span>✗</span>	<span>✗</span>	<span>✗</span>	<span>✗</span>	<span>✓</span>	<span>✓</span>	<span>✓</span>	<span>✓</span>	<span>✓</span>	<span>✓</span>	
	<b>Print Speed</b>	< 300 mm/s	< 200 mm/s	< 300 mm/s	< 300 mm/s	< 300 mm/s	< 80 mm/s	< 250 mm/s	< 200 mm/s	< 100 mm/s	< 100 mm/s	
	<b>Nozzle Temperature</b>	190 - 230 °C	240 - 270 °C	240 - 280 °C	240 - 280 °C	260 - 290 °C	220 - 240 °C	210 - 240 °C	240 - 270 °C	260 - 300 °C	260 - 300 °C	
	<b>Bed Temperature</b>	35 - 55 °C	65 - 75 °C	90 - 100 °C	90 - 100 °C	100 - 110 °C	30 - 45 °C	35 - 55 °C	65 - 75 °C	80 - 110 °C	100 - 110 °C	
Post-printing Processes	<b>Part Cooling Fan</b>	50 - 100%	0 - 60%	0 - 80%	0 - 80%	0 - 60%	50 - 100%	50 - 100%	0 - 40%	0 - 40%	0 - 40%	
	<b>Annealing</b>	55 ~ 60 °C, 6 ~ 12 hours	65 ~ 70 °C, 6 ~ 12 hours	80 ~ 90 °C, 6 ~ 12 hours	80 ~ 90 °C, 6 ~ 12 hours	85 ~ 100 °C, 6 ~ 12 hours	65 ~ 70 °C, 6 ~ 12 hours	55 ~ 60 °C, 6 ~ 12 hours	65 ~ 70 °C, 6 ~ 12 hours	90 ~ 130 °C 6 ~ 12 hours	90 ~ 130 °C 6 ~ 12 hours	