



Filazoo Filament

Technical Data Sheet V1.0



PETG Matte HF

High-Flow PETG — low-gloss finish, fast printing

DOCUMENT NO.	REVISION	ISSUE DATE	DIAMETER	NET WEIGHT
FZ-TDS-PETGMATTEHF-001	V1.0	28/08/26	1.75 mm	1 kg

1 Description

Filazoo PETG Matte HF is a high-flow PETG engineered to print at up to twice the speed of standard PETG while producing a smooth, consistent matte finish that hides layer lines. It keeps PETG's core strengths — impact resistance, moisture resistance and low warping — with the added benefit of a fast, forgiving print profile.

Typical applications — functional parts and enclosures, outdoor fittings, protective covers, and any project wanting PETG's durability with a fast print time and a clean matte look.

Processing summary — the high-flow formulation tolerates faster printing speeds than standard PETG with minimal tuning; standard PETG bed adhesion and drying practices apply.

2 Product Specification

Table 1 — Filament and packaging specification

PARAMETER	UNIT	VALUE
Filament diameter	mm	1.75
Diameter tolerance	mm	± 0.02
Net filament weight	kg	1
Spool material	—	ABS (heat resistance 70 °C)
Spool dimensions (ø × H)	mm	ø 200 × 67 mm
Colour range	—	Black, Dark Gray, Gray, White, Yellow + additional standard colours



3 Recommended Printing Parameters

Table 2 — Recommended starting parameters

PARAMETER	UNIT	VALUE
Drying before printing	°C / h	65 °C for 8 h
Printing and storage humidity	—	Dry storage; sealed with desiccant
Nozzle size	mm	≥ 0.4
Nozzle type	—	Brass or hardened steel
Nozzle temperature	°C	240 – 270
Build plate type	—	Engineering Plate, High Temperature Plate or Textured PEI
Bed surface preparation	—	Clean; light adhesive if needed
Bed temperature	°C	70 – 80
Part cooling fan	—	Medium to high
Printing speed	mm/s	60 – 200
Enclosed chamber	—	Not required
Chamber temperature	°C	Ambient
Retraction length / speed	mm / mm·s ⁻¹	0.8 – 1.2 mm / 30 – 50 mm·s ⁻¹
Max overhang angle	°	~ 65
Max bridging length	mm	~ 30

Values are starting points; the high-flow formulation tolerates faster print speeds with minimal tuning.

4 Material Properties

Values are typical results measured on standard printed specimens and are intended for design reference and comparison. They are not guaranteed minima.

4.1 Physical and thermal properties

Table 3 — Physical and thermal properties

PROPERTY	TEST METHOD	UNIT	TYPICAL VALUE
Density	ISO 1183	g/cm ³	~ 1.28
Melt flow rate (MFR)	210 °C, 2.16 kg	g/10 min	~ 28 ± 3
Melting temperature	DSC	°C	~ 214
Glass transition temperature	DSC	°C	~ 66
Vicat softening temperature	ISO 306	°C	~ 70
Heat deflection temperature	ISO 75, 0.45 MPa	°C	~ 72
Heat deflection temperature	ISO 75, 1.8 MPa	°C	~ 62
Saturated water absorption	25 °C, 55 % RH	%	~ 0.4



4.2 Mechanical properties

Table 4 — Mechanical properties

PROPERTY	TEST METHOD	UNIT	TYPICAL VALUE
Young's modulus (X–Y)	ISO 527 / GB/T 1040	MPa	~ 2100 ± 200
Young's modulus (Z)	ISO 527 / GB/T 1040	MPa	~ 1150 ± 150
Tensile strength (X–Y)	ISO 527 / GB/T 1040	MPa	~ 48 ± 5
Tensile strength (Z)	ISO 527 / GB/T 1040	MPa	~ 43 ± 6
Elongation at break (X–Y)	ISO 527 / GB/T 1040	%	~ 6
Elongation at break (Z)	ISO 527 / GB/T 1040	%	~ 4
Flexural modulus	ISO 178 / GB/T 9341	MPa	~ 2000 ± 150
Flexural strength	ISO 178 / GB/T 9341	MPa	~ 78 ± 10
Impact strength, notched	ISO 179 / GB/T 1043	kJ/m ²	~ 6
Impact strength, unnotched	ISO 179 / GB/T 1043	kJ/m ²	~ 16

4.3 Chemical and physical characteristics

Table 5 — General characteristics of PETG Matte HF

PARAMETER	VALUE
Composition	Polyethylene terephthalate glycol (PETG), high-flow matte grade
Odour	Slight odour when printing; low relative to ABS
Skin hazard	No hazard in solid filament form
Chemical stability	Stable under normal storage and handling
Solubility	Insoluble in water
UV and weathering resistance	Moderate – resists yellowing better than ABS
Acid resistance	Resistant to dilute acids
Alkali resistance	Resistant to dilute bases
Organic solvent resistance	Not resistant to some organic solvents
Oil and grease resistance	Resistant to common oils and greases
Flammability	Flammable
Combustion products	Water, carbon oxides



5 Test Conditions

5.1 Specimen printing conditions

Table 6 — Conditions used to produce test specimens

PARAMETER	UNIT	VALUE
Nozzle temperature	°C	255
Bed temperature	°C	75
Printing speed	mm/s	180
Infill density	%	100
Layer height	mm	0.2
Specimen conditioning / annealing	°C / h	65 °C for 8 h (annealed and dried)

5.2 Specimen geometry

Test specimens follow the geometry defined by the referenced standards. All dimensions in millimetres.

Figure 1 — Tensile specimen

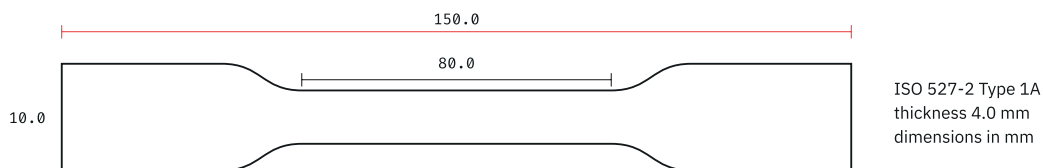


Figure 2 — Flexural specimen

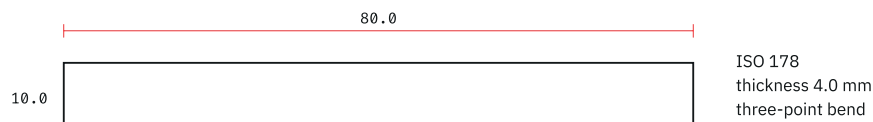
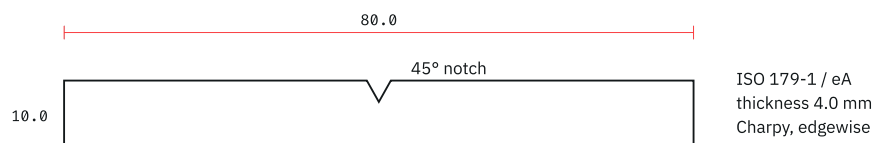


Figure 3 — Impact specimen



6 Disclaimer

The performance values in this document are typical values obtained from standard printed specimens. They are provided for design reference and comparison only and do not constitute a specification or a warranty of performance. Actual printed part performance depends on many further factors, including the printer, hotend and nozzle, slicer settings, part geometry, wall count and infill, build orientation, and ambient conditions.

Users are responsible for the legality, safety and suitability of anything they print. Filazoo accepts no responsibility for the use of its materials in any particular application, or for any damage arising in the course of using them.