

PETG Filament

Glycol-modified PET · 1.75 mm · 1 kg net

MATERIAL	DIAMETER	NET WEIGHT	REVISION	DOCUMENT
PETG	1.75 mm ± 0.02	1 kg	1.0 · Jun 2026	SPL-TDS-PETG

COMPOSITION & PHYSICAL

Polymer	Polyethylene terephthalate glycol (PETG)
Composition	PETG copolyester resin ≥ 98% · pigments & additives ≤ 2%
Density	~1.27 g/cm ³
Appearance	Solid filament, water - insoluble

MECHANICAL PROPERTIES

PROPERTY	TEST STANDARD	TYPICAL VALUE
Young's modulus (XY)	ISO 527 / GB/T 1040	~2200 ± 200 MPa
Young's modulus (Z)	ISO 527 / GB/T 1040	~1200 ± 150 MPa
Tensile strength (XY)	ISO 527 / GB/T 1040	~50 ± 5 MPa
Tensile strength (Z)	ISO 527 / GB/T 1040	~45 ± 6 MPa
Elongation at break	ISO 527 / GB/T 1040	~5% XY / ~3% Z
Flexural modulus	ISO 178 / GB/T 9341	~2100 ± 150 MPa
Flexural strength	ISO 178 / GB/T 9341	~80 ± 10 MPa
Notched impact strength	ISO 179 / GB/T 1043	~5.5 kJ/m ²
Unnotched impact strength	ISO 179 / GB/T 1043	~15 kJ/m ²

THERMAL PROPERTIES

PROPERTY	TEST STANDARD	TYPICAL VALUE
Melt flow rate (MFR)	210 °C, 2.16 kg	~3.0 ± 0.5 g/10 min
Melting temperature	DSC	~230 °C
Glass transition temperature	DSC	~80 °C
Vicat softening temperature	ISO 306	~85 °C
Heat deflection temp (0.45 MPa)	ISO 75	~75 °C
Heat deflection temp (1.8 MPa)	ISO 75	~65 °C

RECOMMENDED PRINT & DRYING SETTINGS

Nozzle temperature	220 – 255 °C
Heated bed temperature	60 – 80 °C
Printing speed	40 – 100 mm/s
Enclosure	Enclosed chamber recommended to reduce warping
Nozzle	Wear-resistant (hardened steel / diamond tip)
Drying	65 – 75 °C for 4 – 6 hours
Storage	Store dry and sealed — protect from moisture

HANDLING & SAFETY

Non-hazardous under normal handling. Molten material can cause thermal burns. Processing fumes at elevated temperatures may cause respiratory irritation — maintain adequate ventilation while printing. Avoid excessive heating, open flames and prolonged exposure above 260 °C. Incompatible with strong oxidisers, acids and alkalis. Refer to the current spool Safety Data Sheet (SDS) for full handling guidance.

COMPLIANCE

ROHS

Compliant with RoHS Directive 2011/65/EU and amendment (EU) 2015/863. Independent testing found Pb, Cd, Hg, Cr(VI), PBBs, PBDEs, DEHP, DBP, BBP and DIBP all **Not Detected** (below method detection limits) — all items Pass. Test report ref. UNIB26031912HR-01, issued 31 Mar 2026.

Values are typical results for guidance only and do not constitute a specification or warranty of any kind. Mechanical and thermal figures are indicative and may vary with print parameters, geometry, environment and test method. Printing, drying, storage and safety guidance is subject to the current spool Safety Data Sheet (SDS). Print settings are starting points — dial in for your printer. Verify suitability for your application before use. © 2026 spool · spool3d.com.au