

TOUGHENED PLA

PLA+ Filament

1.75 mm · 1 kg spool · ±0.03 mm tolerance

Toughened PLA that keeps the easy printing of PLA while adding impact resistance, suited to everyday functional parts and detailed models.

- ✓ Tougher than standard PLA
- ✓ Low warping, no enclosure needed
- ✓ Low odour while printing
- ✓ Measured colour hex codes

Recommended Print Settings

Nozzle temperature	190–220 °C
Bed temperature	25–60 °C
Print speed	60–90 mm/s
Support material	PVA, PETG (as support interface)

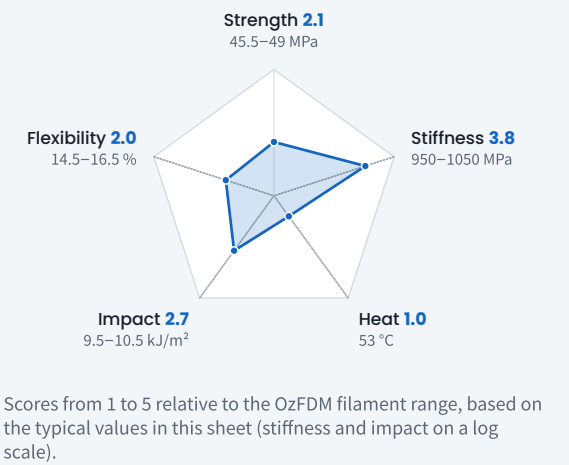
Filament Specifications

Material	Toughened PLA (PLA+)
Diameter	1.75 mm
Diameter tolerance	±0.03 mm
Net filament weight	1 kg

Spool & Packaging

Empty spool weight	150 g
Spool with filament	1.15 kg
Spool outer diameter	200 mm
Hub diameter	52 mm
Spool width	65 mm
Shipping weight	1.3 kg
Box dimensions	210 × 220 × 75 mm

Property Profile



Storage & Handling

- Drying**
40–45 °C for 4–6 hours in a filament dryer or food dehydrator.
- Storage**
Airtight bag or container with desiccant in a cool, dark and dry area to prevent moisture absorption. For optimal long term storage we recommend drying the filament prior to sealing the filament spool in a vacuum bag with desiccant.

Mechanical Properties

PROPERTY	TEST METHOD	TYPICAL VALUE
Tensile strength	ISO 527	45.5–49 MPa
Elongation at break	ISO 527	14.5–16.5 %
Tensile modulus	ISO 527	950–1050 MPa
Flexural strength	ISO 178	73–76 MPa
Impact strength	ISO 180	9.5–10.5 kJ/m ²

Physical Properties

PROPERTY	TEST METHOD	TYPICAL VALUE
Density	ISO 1183	1.25–1.26 g/cm ³
Melt flow rate (190 °C, 2.16 kg)	ISO 1133	3–6 g/10min
Moisture absorption (23 °C, 24 h)	ISO 62	<0.3 %

Thermal Properties

PROPERTY	TEST METHOD	TYPICAL VALUE
Heat deflection temperature (0.455 MPa)	ISO 75	53 °C
Continuous use temperature	IEC 60216	50 °C

Available Colours 18

 Black #1B1B18	 White #DAE0E0	 Cool White #E8EAEA	 Natural #E4E6E7	 Grey #485E67	 Red #BD4442	 Green #649054	 Blue #0F2A83
 Light Blue #007CB2	 Purple #462276	 Rose #CA4590	 Pink #E397BC	 Orange #E9882D	 Yellow #F0C65B	 Skin #D6B38C	 Brown #9C604F
 Gold #C8A24B*	 Silver #A9ABAE*						

Hex codes measured with a Nix Mini 3 colour sensor on finished prints at the recommended settings. * Gold and Silver are estimated. Swatches are indicative only. Colours vary between screens and with print settings.

NOTES

Values shown are typical results measured on test specimens and are provided for guidance only. They are not guaranteed specifications and should not be used as design limits. Printed part properties vary with printer, settings, print orientation and part geometry. Test your parts for suitability before use in critical applications.