

PLA FILAMENT TECHNICAL DATA SHEET

PLA is a thermoplastic polyester derived from renewable resources rather than petroleum, and offers a significant reduction in carbon footprint compared to oil-based plastics. making it the primary choice for 3D printing due to its environmental friendliness and extreme ease of use. It is highly valued for its ability to capture fine details with minimal warping and for its lack of toxic fumes, though it remains a relatively brittle material with low heat resistance.

Application: Casting and moulding, Automobile Parts, Gift articles, Mechanical or Civil, Aeronautical Prototype, Medical Equipment, and other printing parts.

TYPICAL PROPERTIES

Physical properties	Method	Typical value
Density	Literature value	1.24 g/cm ³
Melt flow index	ISO 1133-A (210°C/2.16kg)	6 g/10 min
Glass transition temperature	DSC	60°C
Mechanical properties	Method	Typical value
Tensile modulus	ISO 527-1	3500 MPa
Tensile strength	ISO 527-1	45 MPa
Elongation at break	ISO 527-1	≤ 5%
Heat deflection temp., amorphous ²	ISO 75-1	60°C

Disclaimer

The technical data and property values provided for this PLA material are intended solely for **informational and comparative purposes**. Actual results are highly subjective and significantly dependent on specific **print parameters, printer hardware, user experience, and environmental or weather conditions**. It is the sole responsibility of the user to determine the suitability of the printed parts for their intended application and to account for any potential consequences of their use. **Sattva Filament** shall not be held liable for any variations in data during external testing, nor for any injuries, losses, or damages resulting from the use or application of Sattva Filament materials.