



Technical Data Sheet

PLA_TPU (Impact Modified Polylactic Acid)

Physical Properties – Typical Values

Property	Value (SI Units)
Tensile Modulus (ASTM D638)	2000 MPa
Ultimate Tensile Strength	52 MPa
Elongation at Break	60%
Density, ASTM D792	1.24 gm/cm ³
Hardness (Shore), ASTM D785	65 - 70 R
Izod Impact, 23 C, ASTM D256	200 J /min
Glass Transition Temp, ASTM D792	65 to 70 °C
Heat Deflection Temp, ASTM D648	75 to 85 °C

3D Printing Guide

Property	Value (SI Units)
Recommended Print Speed	45 - 60 mm /s
Recommended Nozzle Temperature	245 – 260 °C
Recommended Bed Temperature	60 °C
Preferred Bed Adhesive	PEI Cover and Glue or Glass and Glue
Special Considerations	Fan Speed 20%

Suggested Applications

PLA_TPU is a composite material with exceptional characteristics. It's been subjected a variety of conditions – i.e. temperatures <-60°C and launched in the stratosphere to setting in a hot motor oil bath for >48hrs at temperatures >100°C. The printed parts performed as desired at those diverse conditions without cracking, changing shape, or failing. It has also been used in outdoor applications on large equipment for temporary functional parts providing excellent performance with crisp detail and little warping.

Available Colors: Natural, Black, Blue, Green, Red, Yellow, White, and Custom

Material is produced using both virgin and reprocessed materials from consistent sources.

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