

INTAMSYS[®] PLA

INTAMSYS[®] PLA is 3D printing material, PolyLactic Acid, with excellent mechanical properties and printing quality. It has a higher impact resistance than regular PLA, and better overall mechanical properties than ABS.

PHYSICAL PROPERTIES	TEST METHOD	UNITS	TYPICAL VALUE
Density	ISO 1183	g/cm ³	1.17-1.24
Glass transition temperature	DSC, 10°C/min	°C	50-60
Softening temperature of filament	Custom method	°C	146-150
Melt index	190°C, 2.16kg	g/10min	5-8
Moisture content	Thermogravimetric	%	≤0.1
Odor	-	-	Almost odorless
Solubility	-	-	Insoluble in water

MECHANICAL PROPERTIES ¹	TEST METHOD	UNITS	TYPICAL VALUE
Tensile strength	ISO 527	MPa	45.6
Young's modulus	ISO 527	MPa	3287
Elongation at break	ISO 527	%	2.4
Bending strength	ISO 178	MPa	87.7
Bending modulus	ISO 178	MPa	1900
Impact strength	ISO 179	kJ/m ²	2.7

Note:

1. All testing specimens were printed using a FUNMAT HT under the following conditions:
Printing temperature = 210 °C, printing speed = 45 mm/s, number of shells = 2, and 100% infill.

Disclaimer

The typical values presented in this document are intended for reference and comparison purposes only. They should not be used for design specifications or quality control purposes. Actual values may vary significantly with printing conditions. End-use performance of printed parts properties can be impact by, but not limited to, part design, environmental conditions, printing conditions, etc. Product specifications are subject to change without notice.

Each user is responsible for determining the safety, lawfulness, technical suitability, and disposal/recycling practices of INTAMSYS materials for the intended application. INTAMSYS makes no warranty of any kind, unless announced separately, to the fitness for any particular use or application. INTAMSYS shall not be made liable for any damage, injury or loss induced from the use of INTAMSYS materials in any particular application.