

TECHNICAL DATA SHEET

PLA

Description

Recreus PLA is a compound based on polylactic acid and belongs to the family thermoplastic polyesters derived from renewable resources. These come from the fermentation of agricultural by-products such as cornstarch or other carbohydrate-rich. An ideal filament for extrusion in FDM 3D printers.

Physical properties	Value	Unit	Test method according to
Material density	1.24	g/cm ³	DIN EN ISO 1183-1-A

Mechanical properties	Value	Unit	Test method according to
Elongation at break	31	%	ISO 527-2
Tensile Modulus	3120	MPa	ISO 527-2
Flexural Modulus	3000	MPa	ISO 527-2
Flexural Strength	52	MPa	ISO 178
Vicat Softening temp.	68	°C	ISO 306
Izod Impact Resistance	4.5	kJ/m ²	ISO 180

Printing properties	Recommended
Printing temperatures	215 - 225°C
Printing speed	20 - 100 mm/s
Hot-bed temperature	40-60°C
Optimal layer height	0.2 mm
Minimal nozzle diameter	0.1 (0.4 mm or higher recommended)
Retraction parameters	3.5 - 6.5 mm (speed 20 - 160 mm/s)