

PLLA Filament

PLLA (Poly (l-lactic acid)), is a biodegradable polymer mainly used for bioengineering research applications. This grade is a 100% biobased and produced from non-GMO renewable vegetal resources according to the NF EN 16785-1 standard. This PLLA is industrially compostable according to NF EN 13432:2000 standard. The production waste can be recycled in production with a rate to determine according to the specificities of the product.

- Biodegradable and industrially compostable
- Suitable for bioengineering research
- High transparency
- 100% biobased
- Food safe

MECHANICAL DATA	CONDITIONS	TEST METHOD	TYPICAL VALUE
Tensile strength at break		ISO 527	50MPa
Tensile elongation at break		ISO 527	≤ 5%
Young's Modulus		ISO 527	3 500 MPa
Flexural Modulus		ISO 178	3 350 MPa
Charpy impact strength (unnotched)		ISO 179	21kJ/m2

THERMAL DATA			
Melt temperature			175 °C
HDT Method B120		ISO 75-2	55 - 60 °C
Vicat Method A50		ISO 306	61 °C

PHYSICAL DATA			
Density		ISO 1183	1,24 g cm ⁻³
Shrinkage			0.1 - 0.2%
MFI (190° ; 2,16 kg)		ISO 1133	3 g/10min
Linear Mould Shrinkage	VSR 3mm	DIN16901	1.4-1.6%
Flammability Behaviour		UL	(V-0)

PRINTRECOMMENDATIONS	
Nozzle temperature	180 - 220 °C
Bed Temperature	40 - 60°C
Print Speed	15 - 30 mm/s
Drying Instruction	3 hours, 60°C
Bed Adhesion	PEI Sheet, carbon fiber plate or glass plate + Magigoo original

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