

Technical specification - Everfil™ PLA-N.01

DESCRIPTION

PLA is Poly-Lactic-Acid, a biodegradable polymer with a low melting point. It is an easy material to print with and **Everfil™ PLA-N.01** gives a smooth printing result. When properly cooled, PLA has a higher maximum printing speed, lower layer heights and sharper printed corners.

Combining this with low warping of the print makes it a popular plastic for makers, prosumers and schools.

TYPICAL PROPERTY VALUES

Filament	Nominal Value	Unit	Test Method
Filament diameter	1,75 , 2,85	mm	-
Diameter tolerance	+/- 0,03	mm	-
Spool weight	1,0 , 3,0	kg netto	-

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1,24	g/cc	ASTMD792
MFR	6	g/10min	ASTMD1238
Relative Viscosity	4,0		ASTMD5225
Clarity	Transparent		
Peak Melt Temperature	145-160	°C	ASTMD3418
Glass Transition Temperature	55-60	°C	ASTMD3418

Mechanical	Nominal Value	Unit	Test Method
Tensile Yield Strength	8700 (60)	psi (MPa)	ASTMD882
Tensile Strength at Break	7700 (53)	psi (MPa)	ASTMD882
Tensile Modulus	524,000 (3.6)	psi (MPa)	ASTMD882
Tensile Elongation	6	%	ASTMD882
Notched Izod Impact	0.3 (16)	ft-lb/in (J/m)	ASTMD256
Flexural Strength	12,000 (83)	psi (MPa)	ASTMD790
Flexural Modulus	555,000 (3.8)	psi (MPa)	ASTMD790
Heat Distortion Temperature	66 psi (0.45 MPa)	°C	ASTME2092

PRINT CONDITIONS Everfil™ PLA-N.01 (may be different for different printers)

3D Printers	Typical Value	Unit
Extruder temperature	180 – 220	°C
Bed temperature (if needed)	50 – 70	°C
Cooling (according to design)	30 – 100	%

STORAGE

Filament can't handle moisture very well and that is why we recommend storing your filament in a cool, dry environment, ideally in a package vacuum sealed with silicate.