



Infilus™ PLA-PRO

Easy printing. Crisp detail. Reliable everyday performance.

Infilus™ PLA-PRO is a premium-grade 1.75 mm polylactic-acid filament engineered for fast, dependable everyday printing. It delivers crisp detail, low warping and excellent dimensional accuracy, making it ideal for both visual prototypes and functional parts that do not require high temperature resistance.

DIAMETER

1.75 ± 0.02 mm

ORIGIN

Made in Germany

NET WEIGHT

1 kg (2.2 lb)

PACKAGING

Recycled spool & box

www.infilus.com

PHYSICAL PROPERTIES

Property	Testing Method	Typical Value
Density	ISO 1183	1.24 g/cm³ at 23 °C
Melt flow index	ISO 1133 (210 °C, 2.16 kg)	6 g/10 min
Moisture absorption (24 h)	ISO 62	0.30 %
Filament diameter tolerance	Laser gauge, in-line	± 0.02 mm
Roundness	Laser gauge, in-line	> 99.5 %

THERMAL PROPERTIES

Property	Testing Method	Typical Value
Glass transition temperature	DSC, 10 °C/min	60 °C
Vicat softening temperature	ISO 306	58 °C
Heat deflection temperature	ISO 75 @ 0.45 MPa	55 °C
Heat deflection temperature	ISO 75 @ 1.80 MPa	50 °C
Decomposition temperature	TGA, 20 °C/min	345 °C

MECHANICAL PROPERTIES

Property	Testing Method	Typical Value
Tensile strength (X-Y)	ISO 527	56 ± 3 MPa
Tensile strength (Z)	ISO 527	36 ± 3 MPa
Young's modulus (X-Y)	ISO 527	2 850 ± 100 MPa
Young's modulus (Z)	ISO 527	2 500 ± 150 MPa
Elongation at break (X-Y)	ISO 527	6 ± 2 %
Elongation at break (Z)	ISO 527	2 ± 1 %
Flexural strength (X-Y)	ISO 178	85 ± 4 MPa
Flexural modulus (X-Y)	ISO 178	3 050 ± 120 MPa
Charpy impact, notched (X-Y)	ISO 179	3.0 ± 0.5 kJ/m²
Charpy impact, unnotched (X-Y)	ISO 179	16 ± 3 kJ/m²

Typical values – not a specification. Actual values may vary with printing conditions and part geometry.

Infilus™ PLA-PRO — Technical Data Sheet

V1.0 | Continued



RECOMMENDED PRINTING CONDITIONS

Parameter	Value
Nozzle temperature	200 – 220 °C
Build plate temperature	50 – 60 °C
Build surface	PEI, glass, blue tape
Printing speed	up to 150 mm/s
Cooling fan	80 – 100 %

Parameter	Value
First layer height	0.2 mm
Retraction distance	1 – 3 mm
Retraction speed	25 – 45 mm/s
Drying (if required)	45 °C / 4 h
Enclosure	Not required

Parameters based on a 0.4 mm nozzle. Adjust for different nozzle diameters. PLA-PRO prints best at high speeds with strong active cooling.

CHEMICAL RESISTANCE

Agent	Effect	Agent	Effect
Weak acids	Good	Weak alkalis	Poor
Strong acids	Poor	Strong alkalis	Poor
Oils & greases	Fair	Alcohols	Fair
Aliphatic hydrocarbons	Good	Aromatic hydrocarbons	Poor
Water (ambient)	Good	Ketones	Poor

LEGEND
Good – minor effect after prolonged contact at ambient temperature.
Fair – suitable for short-term contact at ambient temperature.
Poor – material becomes unstable on contact at ambient temperature.

STORAGE & HANDLING

Store the filament sealed in its original packaging in a cool, dry environment (15 – 25 °C, < 50 % RH). PLA is moderately hygroscopic and will slowly absorb ambient moisture, which can cause stringing and a dull surface finish. If the filament has been exposed to humid air for more than a week, dry at 45 °C for 4 h before printing. A dry-box is recommended when printing large objects or over long periods.

AVAILABLE COLORS

Swatch colors are representative approximations.



DISCLAIMER

All figures on this data sheet describe the typical behaviour of Infilus™ PLA-PRO and are provided as general guidance. They are not contractual specifications and must not be used on their own to qualify parts, set acceptance criteria, or validate regulated applications. Real-world results depend on the printer, slicer settings, nozzle wear, environmental conditions and part geometry, so customers are strongly advised to run their own trials before committing the material to a production or end-use application. Infilus may adjust formulations, suppliers or packaging whenever we believe it improves quality; when that happens, this sheet will be revised and the version number updated. Customers remain responsible for ensuring that their chosen application complies with all local laws, safety standards and recycling obligations. Infilus does not assume liability for any direct or indirect damage, loss or injury connected to the handling, printing or end use of this product, and no warranty is given beyond what is expressly agreed in a separate written contract.