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TECHNICAL DATA SHEET
Inslogic High-Speed PLA Pro Filament

Inslogic High-Speed PLA Pro Filament is an upgraded material for rapid 3D printing at speeds up to 600 mm/s. With a flexural strength of 75 MPa, it offers enhanced toughness, impact resistance, and durability - perfect for strong, reliable parts. Engineered for smooth extrusion and fast cooling, it provides high accuracy, reduced clogging, and consistent print quality without compromising mechanical strength.

Key Features

- Advanced upgrade of HS PLA
- Rapid printing speeds up to 600 mm/s
- Greater toughness, impact resistance & durability
- Improved flowability & inter-layer adhesion
- Excellent quality & surface finish even at high speeds
- Easy to print, biodegradable & eco-friendly

Applications

- Rapid prototyping
- Conceptual models
- Educational projects
- Art and design
- End-use parts

Specifications

Material Name	Inslogic High-Speed PLA Pro
Diameter	1.75 ± 0.02 mm
Net Filament Weight	1 kg

Recommended Print Settings

Drying Settings	50 °C, 4-6h
Nozzle Size	0.2, 0.4, 0.6 mm
Nozzle Temperature & Printing Speed	200 - 215 °C at 50 - 150 mm/s 215 - 230 °C at 150 - 300 mm/s 230 - 260 °C at 300 - 600 mm/s
Bed Temperature	50 - 60 °C
Cooling Fan Speed	100%
Bed Type	Textured PEI Sheet

Physical Properties

Property	Method	Metric
Density	ISO1183	1.26 g/cm3
Melting Temperature, 10 °C/min	ISO11357-3	167 °C
Heat Deflection Temperature at 0.45 MPa	ISO75	55 °C
Shore D Hardness	ISO868	82D

Mechanical Properties

Property	Method	Metric
Tensile Strength	ISO527/2	42 MPa
Elongation at Break	ISO527/2	7.6%
Flexural Strength	ISO178	75 MPa
Flexural Modulus	ISO178	3500 MPa
Izod Impact, Notched (X - Y, 23 °C)	ISO180	11.2 KJ/m²

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