TECHNICAL DATA SHEET

Premium PLA

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Product specifications

Premium PLA is a more pure PLA type of 3D printer filament with higher crystallinity, which makes it the PLA of choice for 3D printing parts with overhangs and for objects where bridging is required.

Important key features

Warp-free printing and no deformation after cooling
Improved flowing behaviour and inter-layer adhesion
Biodegradable

Suitable applications

Detailed prints with overhang or bridge
Automotive
Aviation

Recommended pretreatment

Drying	Not necessary
	50 - 40 °C
	6 h

Print with

Enclosure	No
Dry box	No

Recommended print settings regular speed

Print speed	25 - 150 mm/s
Nozzle temperature	185 - 210 °C
Bed temperature	50 - 60 °C
Fan speed	80 - 100 %

Recommended print settings high speed

Premium PLA is high speed compatible. Our recommended settings will be added once available. Please take note that the nozzle temperature and fan speed need to be raised when printing at high speed.

Material properties	Typical value	Unit of Measure	Test method	Test condition
Density				
Specific gravity	1,24	g/cm3	ASTM D792	
Melt flow rate	6	g/10min	ASTM D1238	210°C/2,16kg
Mechanical properties				
Impact strenght	16	J/m	ASTM D256	Izod notched 23°C
Tensile strenght at yield	60	MPa	ASTM D882	
Tensile strenght at break	53	MPa	ASTM D882	
Tensile modulus	3,5	GPa	ASTM D882	
Elongation at yield	6	%	ASTM D882	
Elongation at break				
Flexural strenght	83	MPa	ASTM D790	
Flexural modulus	3,8	MPa	ASTM D790	
Rockwell hardness				
Thermal properties				
Melting temperature				
Heat deflection temperature	55	°C	ASTM E2092	HDT A
Vicat softening temperature				
Glass transition temperature	60	°C	ASTM D3418	

Product export information

HS code	Description	Origin
39169090	Monofilament for 3D printing	European Union

Disclaimer

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