

Fast Prints PLA

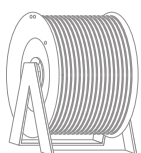
Filament Data Sheet

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Fast Prints PLA

Filament Data Sheet

TECHNICAL SPECIFICATIONS	VALUE	TEST METHOD - ASTM
Material	Medium Flow for Fast Prints PLA	-
Density	1240	D792
Peak Melt Temperature	145° - 160° C	D3418
Glass Transition Temperature	55° - 60° C	D3418
Tensile Yield Strength	62 Mpa	D638
Tensile Strength at Break	57 Mpa	D638
Tensile Modulus	3,7 Gpa	D638
Tensile Elongation	3,5 %	D638
Flexural Strength	108 Mpa	D790
Flexural Modulus	3600 Mpa	D790
Izod Impact Notched	16 J/m	D256
Heat Distortion Temperature	55° C	E2092
Melt Flow	14 g / 10 min	D1238
Melt Temperature (process. temp. profile)	200° C	D3418
Clarity	Transparency	-
Relative Viscosity	3,3	-



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FILAMENT SPECIFICATIONS**VALUE AND TOLERANCES**

Filament Net Weight 1,1 Kg | 2,2 Kg

Roundness Deviation Max 3%

Color All Availables

Diameter 1,75 mm

Diameter Tolerance $\pm 0,05$ mm

Recommended Printing Temperature 180° - 230° C

Recommended Printing Speed up to 300 mm/s

Recommended Bed Temperature 60° C

PRINT SETTINGS**VALUE AND TOLERANCES**

Nozzle 0,4 - 0,7 mm

Layer Height 0,1 - 0,8 mm

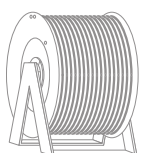
Line Width 0,3 - 0,7 mm

Print Speed 60 - 300 mm/s

Acceleration 3000 mm/s²

Cooling 100 %

Retraction 0 - 6,5 mm/s (Not Necessary)



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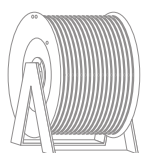
Printing Tests*

LOW SPEED / HIGH RESOLUTION - 130 mm/s

SETTINGS	CARTESIAN TYPE	DELTA TYPE
Nozzle	0,6 mm	0,4 mm
Suggested Printing Temperature	200° C	200° C
Print Speed	130 mm/s	130 mm/s
Cooling	100%	100%
Retraction Speed	25 mm/s (Not Necessary)	85 mm/s (Not Necessary)
Retraction Length	0 - 3,8 mm (Not Necessary)	0 - 6,5 mm (Not Necessary)
Build Plate Temperature	60° C	60° C

MEDIUM SPEED / STANDARD RESOLUTION - 230 mm/s

SETTINGS	CARTESIAN TYPE	DELTA TYPE
Nozzle	0,6 mm	0,4 mm
Suggested Printing Temperature	210° C	210° C
Print Speed	230 mm/s	230 mm/s
Cooling	100%	100%
Retraction Speed	25 mm/s (Not Necessary)	85 mm/s (Not Necessary)
Retraction Length	0 - 3,8 mm (Not Necessary)	0 - 6,5 mm (Not Necessary)
Build Plate Temperature	60° C	60° C



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Printing Tests*

HIGH SPEED / LOW RESOLUTION - 300 mm/s

SETTINGS	CARTESIAN TYPE	DELTA TYPE
Nozzle	0,6 mm	0,4 mm
Suggested Printing Temperature	220° C	220° C
Print Speed	300 mm/s	300 mm/s
Cooling	100%	100%
Retraction Speed	25 mm/s (Not Necessary)	85 mm/s (Not Necessary)
Retraction Length	0 - 3,8 mm (Not Necessary)	0 - 6,5 mm (Not Necessary)
Build Plate Temperature	60° C	60° C

* Tests carried out on CraftBot XL and W.A.S.P. DeltaPrint 20 x 40 cm

