

# Technical Data Sheet

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## Product Information

IIID MAX FiberX Polyethylene terephthalate glycol (PETG) with 15% chopped carbon fiber. A 3D printer filament with excellent mechanical and thermal properties that can be printed on a wide variety of 3D printers without special requirements. **HARDENED NOZZLES ARE REQUIRED TO AVOID EXCESSIVE WEAR. CARBON FIBER FILAMENTS ARE ABRASIVE AND WILL QUICKLY DAMAGE BRASS NOZZLES.**

## Characteristics

- Easy to print
- Very good rigidity and excellent impact resistance
- No/minimal VOC

## Filament Specifications

IIID MAX does not opine, using the below data, on the suitability of the filament for any specific application, nor on the accuracy of such data. Your results may vary depending on the testing methodology, printing parameters used, and other factors that are not under the control of IIID MAX.

Properties	Standard	Min	Max	Nominal	Units
Density	ASTM D-792	1.255	1.265	1.26	g/cm <sup>3</sup>
Melting Point	DSC	190	220	210	°C
Vicat Softening Temperature A/120	ASTM D-648	68	72	70	°C
Ultimate Tensile Strength	ASTM D-538	52	58	55	MPa
Elongation % @ Break	ASTM D-538	4.2	5.2	4.8	%
Flexural/Chord Modulus	ASTM D-790	2000	2125	2050	MPa
Inter-matrix Water Absorption	ASTM D-570	N/A	N/A	<0.8	%

## Printing Specifications

The following printing specifications are recommendations and may not necessary be accurate to your printer. It is recommended to always perform proper calibration of new printer filament to ensure optimal results.

Parameter	Min	Max	Units
Nozzle Temperature	220	255	°C
Bed Temperature	70	100	°C
Printing Speed	30	85	mm/s
Cooling Fan % (not for overhangs)	0	20	%
Cooling Fan % (overhangs)	10	35	%
Drying Temperature	55	70	°C
Drying Time	4	12	hours