

Product Information

IIIDMAX Polycaprolactam Poly[imino(1,6-dioxohexamethylene) iminohexamethylene] (PA6/66) 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. **A HARDENED NOZZLES ARE REQUIRED TO AVOID EXCESSIVE WEAR. CARBON FIBER FILAMENTS ARE ABRASIVE AND WILL QUICKLY DAMAGE BRASS NOZZLES. NOT COMPATIBLE WITH BAMBULAB AMS PRODUCTS.**

Characteristics

- Reduced warping and water absorption compared to other polyamides
- Tough, rigid, and chemical resistant.
- Low VOCs

Filament Specifications

IIIDMAX 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 IIIDMAX. Note that the values provides herein are estimates and solely to be used for general guidance and may not be representative of the properties of a 3D printed part.

Properties	Standard	Min	Max	Nominal	Units
Density	ASTM D-792	1.20	1.21	1.205	g/cm ³
Deflection Temperature at 0.45 MPa	ASTM D-648	130	145	140	°C
Tensile Strength, Break	ASTM D-638	32	36	34	MPa
Tensile Modulus	ASTM D-638	2.0	2.9	2.45	GPa
Flexural/Chord Modulus	ASTM D-790	2600	3220	2950	MPa
Inter-matrix Water Absorption	ASTM D-570	N/A	N/A	<2.5	%

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	265	285	°C
Bed Temperature	90	110	°C
Printing Speed	30	55	mm/s
Cooling Fan % (not for overhangs)	0	5	%
Cooling Fan % (overhangs)	10	20	%
Drying Temperature	70	95	°C
Drying Time	8	24	hours