



## 3D Printing Filament

# TECHNICAL DATA SHEET - NylonX

Commercial name:	MatterHackers Nylon X Carbon Fiber Filament
Raw material:	Carbon fiber reinforced polyamide
Designation:	3D Printing Applications
Manufacturer:	MatterHackers, Inc.

### Material Specifications

PROPERTY	VALUE	TEST METHOD - ISO
Density	1.00g/cm <sup>3</sup>	1183
Melting point	180°C	11357
Tensile Modulus	6000 MPa	527
Tensile Strength	100 MPa	527
Impact strength	60 kJ / m <sup>2</sup>	179 / 2-1eU
Shore hardness	110 MPa	2039-1
Heat deflection temp. HDT/A	155°C	75
Thermal expansion coefficient	0.2 (10 <sup>-4</sup> )	11359
Max usage Temp. long term	90-120°C	2578
Max usage Temp. short term	150°C	2578D
Dielectric strength	-	IEC 60243
Specific volume resistivity	103 <sup>11</sup> Ωm	IEC 60243
Flammability	HB	1210
Linear mould shrinkage	0.3	294

### Filament Specifications

PROPERTY	VALUE
Diameter 1.75mm	1.75 ± 0.05 mm
Diameter 2.85mm	2.85 ± 0.05 mm
Roundness deviation	max 2%
Suggested print temperature	250-265°C
Suggested print speed	35-45mm/s
Suggested bed temperature	60-65°C