



TECHNICAL DATA SHEET

Commercial name: MatterHackers Nylon X Carbon Fiber Filament
Raw material: Carbon fiber reinforced polyamide
Designation: 3D printing applications
Supplier: MatterHackers, Inc.

Material specifications

Property	Value	Test Method - ISO
Density	1.00 g/cm ³	1183
Melting point	180°C	11357
Tensile Modulus	6000 MPa	527
Tensile Strength	100 MPa	527
Impact strength	60 kJ/m ²	179/2-1eU
Ball indentation hardness	110 MPa	2039-1
Heat deflection temp. HDT/A	155°C	75
Thermal expansion coefficient	0.5 10 ⁻⁴ /K	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	10 ³ Ωm	IEC 60243
Flammability	HB	1210
Linear mould shrinkage	0.3	294

Filament specifications

Property	Value and Tolerances
Diameter 1.75mm	1.75 ± 0.05 mm
Diameter 2.85mm	2.85 ± 0.05 mm
Roundness deviation	max 2%
Suggested print temperature (guideline)	240°C
Suggested print speed	40 mm/s
Suggested bed temperature	20°C (not necessary)