



3D Printing Filament

TECHNICAL DATA SHEET - Nylon X

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 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
Shore 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 ³¹ 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	240°C
Suggested print speed	40 mm / s
Suggested bed temperature	20°C (not necessary)