3D Printing Filament

TECHNICAL DATA SHEET – NYLFORCE Carbon Fiber

Commercial name: Fiber Force NYLFORCE CF

Raw material: Carbon fiber reinforced polyammide

Designation: 3D printing applications

Manufacturer: Fiber Force Italy srl – Vicolo Dotti 4 – 31100 Treviso – Italy

Material specificifications

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 specificifications

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)	Between 250°C and 265°C
Suggested print speed	40 mm/s
Suggested bed temperature	60°C/70°C