

CARBON FIBRE REINFORCED NYLON 6

PA6-CF Filament

1.75 mm · 1 kg spool · ± 0.05 mm tolerance

Nylon 6 with 15 % carbon fibre for strong, rigid and heat resistant functional parts with a matte finish.

✓ HDT 200 °C

✓ 85 % PA6, 15 % carbon fibre

✓ Very high stiffness

✓ Hardened steel nozzle required

Recommended Print Settings

Nozzle temperature 270–290 °C
280 °C recommended

Bed temperature 60–90 °C
80 °C recommended

Print speed 40–90 mm/s

Support material PVA

i Use a hardened steel nozzle and an enclosed printer. Dry thoroughly before printing.

Filament Specifications

Material PA6 with 15 % carbon fibre

Diameter 1.75 mm

Diameter tolerance ± 0.05 mm

Net filament weight 1 kg

Spool & Packaging

Empty spool weight 150 g

Spool with filament 1.15 kg

Spool outer diameter 200 mm

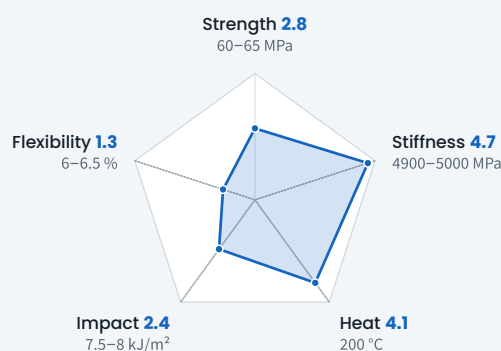
Hub diameter 52 mm

Spool width 65 mm

Shipping weight 1.3 kg

Box dimensions 210 × 220 × 75 mm

Property Profile



Scores from 1 to 5 relative to the OzFDM filament range, based on the typical values in this sheet (stiffness and impact on a log scale).

Storage & Handling

Drying

80 °C for a minimum of 12 hours in a filament dryer or food dehydrator.

Storage

Airtight bag or container with desiccant in a cool, dark and dry area to prevent moisture absorption. For optimal long term storage we recommend drying the filament prior to sealing the filament spool in a vacuum bag with desiccant.

Mechanical Properties

PROPERTY	TEST METHOD	TYPICAL VALUE
Tensile strength	ISO 527	60–65 MPa
Elongation at break	ISO 527	6–6.5 %
Tensile modulus	ISO 527	4900–5000 MPa
Impact strength	ISO 180	7.5–8 kJ/m ²

Physical Properties

PROPERTY	TEST METHOD	TYPICAL VALUE
Density	ISO 1183	1.24–1.26 g/cm ³
Melt flow rate	ISO 1133	3–6 g/10min
Moisture absorption (23 °C, 24 h)	ISO 62	<1 %

Thermal Properties

PROPERTY	TEST METHOD	TYPICAL VALUE
Heat deflection temperature (0.455 MPa)	ISO 75	200 °C
Continuous use temperature	IEC 60216	150–180 °C
Use temperature (200 hours)	–	180 °C

Electrical Properties

PROPERTY	TEST METHOD	TYPICAL VALUE
Insulation resistance	IEC 60167	≤10 ² Ω
Surface resistance	IEC 60093	≤10 ² Ω

Available Colours 1



Carbon Fibre
Black

Swatches are indicative only. Colours vary between screens and with print settings.

NOTES

Values shown are typical results measured on test specimens and are provided for guidance only. They are not guaranteed specifications and should not be used as design limits. Printed part properties vary with printer, settings, print orientation and part geometry. Test your parts for suitability before use in critical applications.