

CARBON FIBRE REINFORCED PPS

PPS-CF Filament

1.75 mm · 1 kg spool · ±0.05 mm tolerance

Carbon fibre reinforced PPS for parts exposed to extreme heat, chemicals and sustained mechanical loads.

✓ HDT 245 °C

✓ UL 94 V-0

✓ Hardened steel nozzle required

✓ High temperature hotend

Recommended Print Settings

Nozzle temperature 300–350 °C
320 °C recommended

Bed temperature 90–110 °C
100 °C recommended

Print speed 60–200 mm/s
150 mm/s recommended

Support material PPS-CF (self supported)

i Needs a high temperature hotend, a hardened steel nozzle and an enclosed printer.

Filament Specifications

Material Carbon fibre reinforced PPS

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

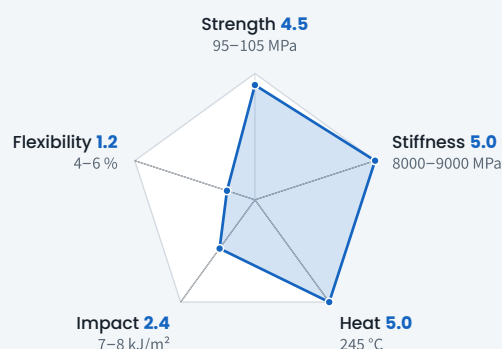
Hub diameter 52 mm

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

120 °C for a minimum of 8 hours in a filament dryer or oven.

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.

Annealing

Annealing finished parts at 80–100 °C for 1–3 hours is recommended.

Mechanical Properties

PROPERTY	TEST METHOD	TYPICAL VALUE
Tensile strength (X-Y)	ISO 527	95–105 MPa
Elongation at break (X-Y)	ISO 527	4–6 %
Tensile modulus (X-Y)	ISO 527	8000–9000 MPa
Flexural strength (X-Y)	ISO 178	125–135 MPa
Flexural strength (Z)	ISO 178	50–52 MPa
Flexural modulus (X-Y)	ISO 178	6000–6500 MPa
Flexural modulus (Z)	ISO 178	2200–2260 MPa
Impact strength (X-Y)	ISO 180	7–8 kJ/m ²
Impact strength (Z)	ISO 180	2.5–3 kJ/m ²

Physical Properties

PROPERTY	TEST METHOD	TYPICAL VALUE
Density	ISO 1183	1.30–1.32 g/cm ³
Melt flow rate (316 °C, 5 kg)	ISO 1133	50–60 g/10min
Moisture absorption (23 °C, 24 h)	ISO 62	<0.1 %
Flame rating	UL 94 (1/16 in)	V-0

Thermal Properties

PROPERTY	TEST METHOD	TYPICAL VALUE
Heat deflection temperature (0.455 MPa)	ISO 75	245 °C
Continuous use temperature	IEC 60216	220 °C

Electrical Properties

PROPERTY	TEST METHOD	TYPICAL VALUE
Surface resistance	IEC 60093	≤10 ⁵ Ω

Available Colours 1



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.