

PA6-CF Nylon Carbon Fiber Filament

TECHNICAL DATA SHEET | Document NF-TDS-PA6CF-001 | Revision 1.0 | 19 July 2026

Product Overview

NexaForge PA6-CF is an engineering-grade nylon carbon fiber reinforced filament developed for applications requiring high stiffness, dimensional stability and heat resistance.

Typical Material Properties

Property	Test Method	Typical Value
Material	—	PA6 + Carbon Fiber Reinforcement
Density	ASTM D792	1.175 g/cm ³
Melting Temperature	DSC	200–220°C
Tensile Strength	ASTM D638	66 MPa
Elongation at Break	ASTM D638	180%
Flexural Strength	ASTM D790	90 MPa
Flexural Modulus	ASTM D790	2573 MPa
Notched Impact Strength	ASTM D256	31 J/m
Shrinkage	ASTM D955	0.5–0.8%
Vicat Softening Point	Internal Data	170°C

Important Data Qualification

The above values are typical OEM material data from PA6-CF compound testing. Printed part performance depends on printer configuration, drying condition, nozzle type, print orientation and post-processing.

The values are not a certificate for a finished printed part, a guaranteed specification for every production batch, or a substitute for buyer validation in the intended application. Batch-specific documentation and test requirements should be agreed before purchase.

Recommended Processing Window

Filament diameter	1.75 mm
Nozzle temperature	260–290°C
Bed temperature	80–110°C
Drying	80°C for 8–12 hours before printing
Nozzle	Hardened steel, 0.4–0.6 mm

Enclosure	Recommended
Storage	Keep sealed with desiccant; use a dry box during printing

Supplier Contact

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