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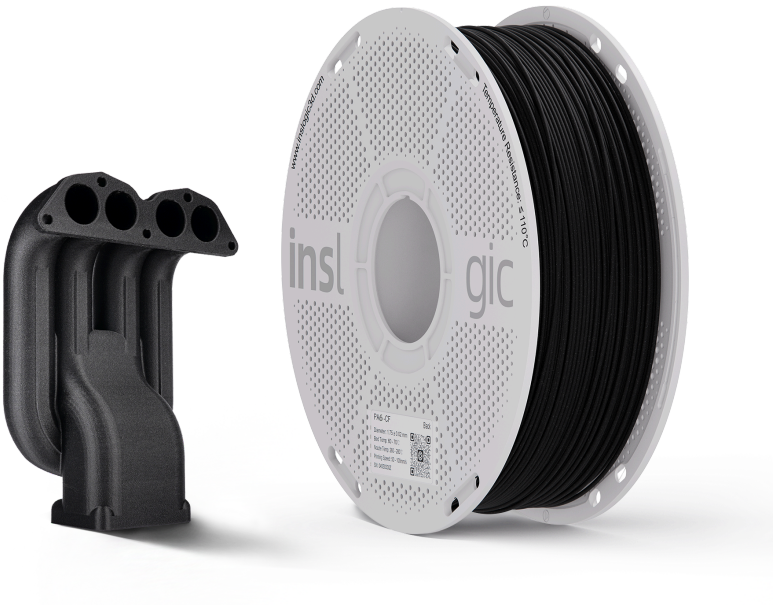
TECHNICAL DATA SHEET
Inslogic PA6-CF Filament



Inslogic PA6-CF is an engineering-grade material reinforced with high-modulus carbon fiber, offering exceptional stiffness, strength, and layer adhesion. With heat resistance up to 209°C, excellent dimensional stability, and high impact resistance, it is ideal for structural and engineering components.

Key Features

- Light weight
- Heat resistant up to 209°C
- Wear and impact resistant
- Superior strength and stiffness
- Excellent chemical resistance
- Superior dimensional stability

Applications

- Manufacturing
- Automotive
- Tooling
- Functional and structural parts

Specifications

Material Name	Inslogic PA6-CF
Diameter	1.75 ± 0.03 mm
Net Filament Weight	1 kg

Recommended Print Settings

Drying Settings	90 °C for 12h, 110 °C for 4h
Nozzle Size	0.4, 0.6 mm
Nozzle Temperature & Printing Speed	270 - 290 °C at 50 - 100 mm/s
Bed Temperature	50 - 70 °C
Cooling Fan Speed	30%
Bed Type	Textured PEI Sheet

Physical Properties

Property	Method	Metric
Density	ISO 1183	1.2 g/cm^3
Melting Temperature, 10 °C/min	ISO 11375-3	226 °C
Glass Transition Temperature, 10 °C/min	ISO 11375-3	65 °C
Heat Deflection Temperature at 0.45 MPa	ISO 75	209 °C

Mechanical Properties

Property	Method	Metric
Tensile Strength	ISO 527/2	172 MPa
Elongation at Break	ISO 527/2	10.1%
Flexural Strength	ISO 178	254 MPa
Flexural Modulus	ISO 178	10202 MPa
Izod Impact, Notched	ISO 180	9.9 KJ/m²

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