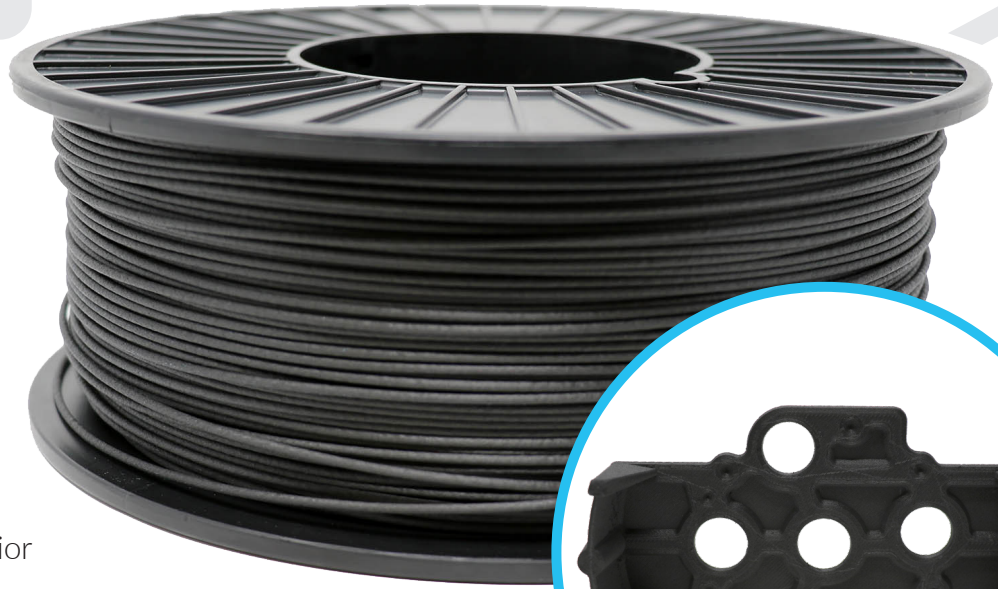


PA 4035 CF

Overview

PA 4035 CF is an ESD safe carbon fiber PA12 copolymer which provides greater stiffness, strength and toughness over similar products on the market. The high carbon fiber loading provides superior tensile strength and modulus while the PA12 base promotes relatively high ductility and ease of handling. Special formulation and processing reduce filament breakage during loading and printing. PA 4035 CF prints on any open-source desktop filament 3D printer.



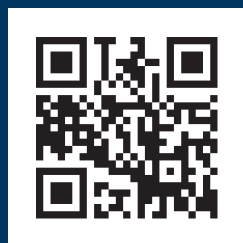
Applications:

- Ducting for automotive and aerospace
- Casting patterns
- Composite tooling
- Prosthetics

Advantages:

- High strength, stiffness and toughness
- Mechanical properties can be tailored by adjusting fill orientation
- Superior printed part surface finish quality
- Ease of handling filament during loading and printing
- Surface resistivity of $\leq E9$ for ESD sensitive applications
- Low print temperature enables the use on more machines

Scan for more information:



PA 4035 CF



Print Temperature

The optimal printing range is 240°-260°



Bed Temperature

A bed temperature of 70°C will provide the best adhesion during printing.



Printing Speed

Default print speed - 45mm/s
 Infill speed - 45mm/s
 Wall speed - 30mm/s
 Initial layer speed - 20mm/s
 Top/Bottom speed - 25mm/s



Cooling

A fan speed of 100% works best.



Bed Adhesion

Use a skirt with a thick layer of PVA glue stick on glass.



Colors Available

Black



Diameters Available

1.75mm and 2.85mm

Scan to get
print profiles:



Mechanical Properties¹

	Test Condition	Typical Value	Method
Tensile Modulus (GPa)	+/- 45° Infill	6.0	ASTM D638, Type I
Tensile Elongation at Break (%)		3.9	
Ultimate Tensile Strength (MPa)		66	
Flexural Modulus (GPa)	+/- 45° Infill	5.1	ASTM D790
Flexural Strength (MPa)		110	
Izod Impact (J/m)	Notched	191	ASTM D256
Izod impact (J/m)	Un-Notched	557	

Thermal Properties

	Test Condition	Typical Value	Method
HDT @ 0.455 MPa (°C)	+/- 45° Infill	154	DMA
HDT @ 1.82 MPa (°C)		89	
Melt Temperature (°C)	20 °C/min	180	DSC

1. Testing conducted on bars printed in XY orientation at 250°C and tested dry. Typical values are for reference only.

Dimensional Properties

	Test Condition	Typical Value	Method
Diameter: Mean, Indiv. Axis (mm)	In-line, 100% inspection	+/- 0.05	Laser Micrometer