FIBER FILLED

PA 703-CF

HIGHLIGHTS

- Carbon fiber filled nylon 6
- Parts exhibit excellent stiffness and mechanical properties
- Higher temperature tolerance compared to standard nylon 12's
- Easy to process on EOS plastics machines, and machines with a Multizone heating system from Integra

APPLICATIONS

- Automotive engine components
- Mold and tooling applications
- High performance motorsports and outdoor recreation
- Ideal for rugged applications requiring stiffness at sustained elevated temperatures

TYPICAL PHYSICAL PROPERTIES

PROPERTY	TEST METHOD	ENGLISH	METRIC
Color/Appearance	Visual	Dark Grey	Dark Grey
Bulk Density	ASTM D1895	0.260 oz/in^3	0.45 g/cm^3
Average Particle Size (D50)	Laser Diffraction	0.002 inches	63 microns
Particle Size Range (D10-D90)	Laser Diffraction	0.001 - 0.004 inches	35 - 95 microns
Sintered Part Density	ASTM D792	0.728 oz/in^3	1.26 g/cm^3
Heat Deflection Temperature	ASTM D648	Testing in Progress	Testing in Progress
Heat Deflection Temperature	ASTM D648	Testing in Progress	Testing in Progress
Ultimate Tensile Strength (XY)	ASTM D638	7,725 psi	53 MPa
Tensile Modulus (XY)	ASTM D638	928,000 psi	6,398 MPa
Flexural Modulus (XY)	ASTM D790	982,000 psi	6,771 MPa
Elongation at Break (XY)	ASTM D638	2%	2%
Flexural Strength (XY)	ASTM D790	13,348 psi	53 MPa
Part Moisture Absorption (23° C 50% RH)	ASTM D570	3.3%	3.3%
Powder Moisture Absorption (23° 50% RH)	ASTM D570	4.1%	4.1%

The material properties provided herein are for reference purposes only. Actual values may vary significantly as they are dramatically affected by part geometry and process parameters. Material specifications are subject to change without notice.

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RPS
Industrial 3D Printing Systems

About RPS

RPS has been in operation over ten years and our engineers collectively have decades of experience working with stereolithography and laser sintering equipment. With proven experience in 3D printing, engineering, electronics, computer-aided engineering and more, we understand the technology and can offer advice on how it can suit your specific application.

We manufacture the **NEO800** stereolithography system, designed, developed and built by RPS engineers. We are also an HP Channel Partner of HP's Multi-Jet Fusion technology and offer a range of materials and software through our partnership with market-leading suppliers ALM, DSM Somos® and Materialise.

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