LASER SINTERING MATERIAL SPECIFICATIONS

AN EOS COMPANY

PA 602-CF

NYLON 12

23% Carbon-Fiber-Filled Nylon 12 optimized for stiffness and sustainable accuracy at elevated temperatures.

HIGHLIGHTS

- → High-Detail Surface Finish
- → Fine-Feature Resolution
- → Dimensional Stability at Elevated Temperatures

APPLICATIONS

- → Under hood engine components
- → Rapid tooling applications
- → Wind tunnel model testing

HEADQUARTERS

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TYPICAL PHYSICAL PROPERTIES			
PROPERTY	**TEST METHOD**	**IMPERIAL**	**METRIC**
Color/Appearance	Visual	Dark Gray	Dark Gray
Bulk Density	ASTM D1895	0.237 oz/in^3	0.41 g/cm^3
Average Particle Size (D50)	Laser Diffraction	0.002 inches	50 microns
Particle Size Range (D10-D90)	Laser Diffraction	0.001 - 0.004 inches	35 - 100 microns
Sintered Part Density	ASTM D792	0.634 oz/in^3	1.10 g/cm^3
Ultimate Tensile Strength (XY)	ASTM D638	9,862 psi	68 MPa
Tensile Modulus (XY)	ASTM D638	841,218 psi	5,800 MPa
Elongation at Break (XY)	ASTM D638	5%	5%
Elongation at Break (XY)	ASTM D638	5%	5%
Ultimate Tensile Strength (YX)	ASTM D638	7,542 psi	52 MPa
Tensile Modulus (YX)	ASTM D638	464,120 psi	3,200 MPa
Tensile Modulus (YX)	ASTM D638	464,120 psi	3,200 MPa
Elongation at Break (YX)	ASTM D638	8%	8%
Ultimate Tensile Strength (Z)	ASTM D638	6,091 psi	42 MPa
Tensile Modulus (Z)	ASTM D638	362,594 psi	2,500 MPa
Elongation at Break (Z)	ASTM D638	6%	6%