

GLASS SPHERE FILLED

**PA 840-GSL  
Black**

**HIGHLIGHTS**

- Crisp, melt mixed black material
- Best strength to weight ratio properties of any LS material
- Reduced monomer outgassing compared to other nylon 11's
- Excellent surface finish and detail

**APPLICATIONS**

- Aerospace/UAV components
- Rugged outdoor use
- Motor sports and racing
- Ideal for applications requiring a balance of strength, lighter weight, and ductility without sacrificing dimensional stability and surface finish

**TYPICAL PHYSICAL PROPERTIES**

PROPERTY	TEST METHOD	ENGLISH	METRIC
Color/Appearance	Visual	Black	Black
Bulk Density	ASTM D1895	0.243 oz/in <sup>3</sup>	0.42 g/cm <sup>3</sup>
Average Particle Size (D50)	Laser Diffraction	0.002 inches	50 microns
Particle Size Range (D10-D90)	Laser Diffraction	0.001 - 0.003 inches	38 - 78 microns
Sintered Part Density	ASTM D792	0.503 oz/in <sup>3</sup>	0.87 g/cm <sup>3</sup>
Ultimate Tensile Strength (XY)	ASTM D638	7,000 psi	48 MPa
Ultimate Tensile Strength (Z)	ASTM D638	5,400 psi	37 MPa
Tensile Modulus (XY)	ASTM D638	490,000 psi	3,378 MPa
Tensile Modulus (Z)	ASTM D638	310,000 psi	2,137 MPa
Elongation at Break (XY)	ASTM D638	4%	4%
Elongation at Break (Z)	ASTM D638	4%	4%

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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