

GLASS SPHERE FILLED

**PA 616-GS**

**HIGHLIGHTS**

- 50% glass filled nylon 12
- Parts exhibit excellent stiffness and mechanical properties
- Tightly controlled glass particle size for a higher detailed surface finish
- Powder flow optimized for EOS Plastics machines

**APPLICATIONS**

- Automotive engine components
- Mold and tooling applications
- Complex geometries requiring accuracy and feature resolution
- Ideal for rugged applications requiring stiffness at elevated temperatures

**TYPICAL PHYSICAL PROPERTIES**

PROPERTY	TEST METHOD	ENGLISH	METRIC
Color/Appearance	Visual	Light Gray	Light Gray
Bulk Density	ASTM D1895	0.387 oz/in <sup>3</sup>	0.67 g/cm <sup>3</sup>
Average Particle Size (D50)	Laser Diffraction	0.002 inches	55 microns
Particle Size Range (D10-D90)	Laser Diffraction	0.001 - 0.004 inches	35 - 100 microns
Sintered Part Density	ASTM D792	0.861 oz/in <sup>3</sup>	1.49 g/cm <sup>3</sup>
Heat Deflection Temperature	ASTM D648	273° F @ 264 psi	134° C @ 1.82 MPa
Heat Deflection Temperature	ASTM D648	354° F @ 66 psi	179° C @ 0.45 MPa
Ultimate Tensile Strength (XY)	ASTM D638	5,500 psi	38 MPa
Tensile Modulus (XY)	ASTM D638	857,172 psi	5,910 MPa
Flexural Modulus (XY)	ASTM D790	478,624 psi	3,300 MPa
Elongation at Break (XY)	ASTM D638	2%	2%
Izod Impact Strength - Notched (XY)	ASTM D256	1.8 ft-lb/in	96 J/m
Izod Impact Strength - Unnotched (XY)	ASTM D256	2.3 ft-lb/in	120 J/m
Dielectric Constant	ASTM D150	3.7	3.7
Chemical Resistance		Alkalines, hydrocarbons, fuels, solvents	

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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