



# PA 614-GS

## NYLON 12

40% Glass-Sphere-Filled Nylon 12 optimized for easy processing and as a drop-in replacement for comparable Glass-Sphere-Filled Nylon 12's.

### HIGHLIGHTS

- Long-Term Wear Resistance
- Good Stiffness and Mechanical Properties
- High Recyclability

### APPLICATIONS

- Automotive engine components
- Mold and tooling applications
- Complex geometries and rugged applications



### HEADQUARTERS

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## NYLON 12

Tightly controlled glass particle size for improved detailed surface finish, dimensional stability, and high-temp applications.

TYPICAL PHYSICAL PROPERTIES			
PROPERTY	TEST METHOD	IMPERIAL	METRIC
Color/Appearance	Visual	Light Gray	Light Gray
Bulk Density	ASTM D1895	0.393 oz/in <sup>3</sup>	0.63 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	0.705 oz/in <sup>3</sup>	1.22 g/cm <sup>3</sup>
Heat Deflection Temperature	ASTM D648	205°F at 264 psi	96°C at 1.82 MPa
Heat Deflection Temperature	ASTM D648	315°F at 66 psi	157°C at 0.45 MPa
Ultimate Tensile Strength (XY)	ASTM D638	7,397 psi	51 MPa
Tensile Modulus (XY)	ASTM D638	464,120 psi	3,200 MPa
Flexural Modulus (XY)	ASTM D790	420,609 psi	2,900 MPa
Elongation at Break (XY)	ASTM D638	9%	9%
Izod Impact Strength - Notched (XY)	ASTM D256	1.5 ft-lb/in	65 J/m
Izod Impact Strength - Unnotched (XY)	ASTM D256	3.2 ft-lb/in	144 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.