

## ALM PA 614-GS Filled Nylon 12 Prototyping Polymer

Category : Polymer , Rapid Prototyping Polymer , Thermoplastic , Nylon , Nylon 12

### Material Notes:

40% glass sphere filled material for improved dimensional stability, increased stiffness, and higher temperature applications when compared to unfilled PA. Drop-in replacement for other commercially available 40% glass sphere filled PA 12 laser sintering powders. More recyclable, produces a better part surface finish, and the dry powder flow has been optimized. Information provided by Advanced Laser Materials (ALM).

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_ALM-PA-614-GS-Filled-Nylon-12-Prototyping-Polymer.php](http://www.lookpolymers.com/polymer_ALM-PA-614-GS-Filled-Nylon-12-Prototyping-Polymer.php)

Physical Properties	Metric	English	Comments
Bulk Density	0.630 g/cc	0.0228 lb/in <sup>3</sup>	ASTM D1895
Density	1.22 g/cc	0.0441 lb/in <sup>3</sup>	Sintered; ASTM D792
Particle Size	57 µm	57 µm	D50
	35 - 100 µm	35 - 100 µm	D10-D90
Melt Flow	50 g/10 min	50 g/10 min	3 min; ASTM D1238
	@Load 5.00 kg, Temperature 235 °C	@Load 11.0 lb, Temperature 455 °F	

Mechanical Properties	Metric	English	Comments
Tensile Strength, Ultimate	51.0 MPa	7400 psi	XY; ASTM D638
Elongation at Break	9.0 %	9.0 %	XY; ASTM D638
Tensile Modulus	3.20 GPa	464 ksi	XY; ASTM D638
Flexural Modulus	2.90 GPa	421 ksi	XY; ASTM D790
Izod Impact, Notched	0.420 J/cm	0.787 ft-lb/in	ASTM D256
Izod Impact, Unnotched	2.13 J/cm	3.99 ft-lb/in	ASTM D256

Thermal Properties	Metric	English	Comments
Melting Point	186 °C	367 °F	ASTM D3418
Deflection Temperature at 0.46 MPa (66 psi)	175 °C	347 °F	ASTM D648
Deflection Temperature at 1.8 MPa (264 psi)	110 °C	230 °F	ASTM D648

Electrical Properties	Metric	English	Comments
Volume Resistivity	2.00e+14 ohm-cm	2.00e+14 ohm-cm	50% RH, 500V; ASTM D257
Surface Resistance	2.30e+14 ohm	2.30e+14 ohm	50% RH, 500V; ASTM D257
Dielectric Constant	3.7	3.7	ASTM D150

## Contact Songhan Plastic Technology Co.,Ltd.

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