

PA 614-GS

40% Glass Filled Nylon 12 Laser Sintering Material

Technical Data Sheet

POWDER PROPERTIES

TEST METHOD

ALM PA 614-GS

Bulk Density	ASTM D1895	0.63 grams/CC
Average Particle Size (D50)	Laser Diffraction	57 microns
Particle Size Range (D10-D90)	Laser Diffraction	35 to 100 microns
Sintered Part Density	ASTM D792	1.22 grams/CC

THERMAL PROPERTIES

TEST METHOD

ALM PA 614-GS

Melting Point	ASTM D3418	186 Deg C
Melt Flow Rate (3min, 5.0kg, 235C)	ASTM D1238	50 grams/10min

MECHANICAL PROPERTIES

TEST METHOD

ALM PA 614-GS

Heat Deflection Temp @ 0.45 MPa	ASTM D648	175 Deg C
Heat Deflection Temp @ 1.82 MPa	ASTM D648	110 Deg C
Ultimate Tensile Strength (XY)	ASTM D638	51 MPa / 7,397 psi
Tensile Modulus (XY)	ASTM D638	3,200 MPa / 464 kpsi
Flexural Modulus (XY)	ASTM D790	2,900 MPa / 421 kpsi
Elongation at Break (XY)	ASTM D638	9%
IZOD Impact Strength (Unnotched)	ASTM D256	213 J/m
IZOD Impact Strength (Notched)	ASTM D256	42 J/m
Volume Resistivity (22C, 50%RH, 500V)	ASTM D257	2.0 x 10 ¹⁴ ohm-cm
Surface Resistivity (22C, 50%RH, 500V)	ASTM D257	2.3 x 10 ¹⁴ ohm
Dielectric	ASTM D150	3.7

Actual part properties may vary slightly from those listed above based on processing parameters, operating conditions, and material usage. The above properties were based on virgin ALM PA 614-GS using nominal operating parameters on a 2500+ platform. Advanced Laser Materials, LLC makes no warranties of materials for any particular application, nor does it make a warranty of any type, expressed or implied, including, but not limited to, the warranties of merchantability for a particular purpose.



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