PA 615-GS

50% Glass Filled Nylon 12 Laser Sintering Material

Technical Data Sheet

POWDER PROPERTIES	TEST METHOD	ALM PA 615-GS
Bulk Density	ASTM D1895	0.67 grams/CC
Average Particle Size (D50)	Laser Diffraction	50 microns
Particle Size Range (D10-D90)	Laser Diffraction	35 to 100 microns
Sintered Part Density	ASTM D792	1.49 grams/CC

THERMAL PROPERTIES	TEST METHOD	ALM PA 615-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 615-GS
Heat Deflection Temp @ 0.45 MPa	ASTM D648	179 Deg C
Heat Deflection Temp @ 1.82 MPa	ASTM D648	134 Deg C
Ultimate Tensile Strength (XY)	ASTM D638	31 MPa / 4,500 psi
Tensile Modulus (XY)	ASTM D638	4,100 MPa / 595 kpsi
Flexural Modulus (XY)	ASTM D790	3,100 MPa / 450 kpsi
Tensile Modulus (Z)	ASTM D638	2,137 MPa / 5,400 psi
Elongation at Break (XY)	ASTM D638	1.6%
IZOD Impact Strength (Unnotched)	ASTM D256	101 J/m
IZOD Impact Strength (Notched)	ASTM D256	96 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 Constant		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 615-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.

Advanced Laser Materials, LLC • Tel: 254-773-3080 • Fax: 254-773-3084
3115 Lucius McCelvey, Temple, TX 76504 • www.alm-llc.com