PA 606-FR

Technical Data Sheet

Fire Retardant Nylon 12 Laser Sintering Material

POWDER PROPERTIES	TEST METHOD	ALM PA 606-FR
Specific Gravity	ASTM D792	1.02 grams/CC
Bulk Density	ASTM D1895	0.46 grams/CC
Average Particle Size (D50)	Laser Diffraction	55 microns
Particle Size Range (D10-D90)	Laser Diffraction	30 to 100 microns

THERMAL PROPERTIES	TEST METHOD	ALM PA 606-FR
Melting Point	ASTM D3418	181 Deg C
Melt Flow Rate (3min, 5.0kg, 235C)	ASTM D1238	50 grams/10min

MECHANICAL PROPERTIES	TEST METHOD	ALM PA 606-FR
Heat Deflection Temp @ 0.45 MPa	ASTM D648	177 Deg C
Heat Deflection Temp @ 1.82 MPa	ASTM D648	86 Deg C
Ultimate Tensile Strength (XY)	ASTM D638	48 MPa / 6,962 psi
Tensile Modulus (XY)	ASTM D638	1,700 MPa / 247 kpsi
Flexural Modulus (XY)	ASTM D790	1,500 MPa / 217 kpsi
Elongation at Break (XY)	ASTM D638	24%
IZOD Impact Strength (Unnotched)	ASTM D256	440 joules/meter
IZOD Impact Strength (Notched)	ASTM D256	220 joules/meter
Volume Resistivity (22C, 50% RH, 500V)	ASTM D257	3.1 x 10^14 ohm-cm
Surface Resistivity (22C, 50% RH, 500V)	ASTM D257	3.0 x 10^14 ohm
Dielectric Contstant (22C, 50% RH, 500V)	ASTM D150	2.9

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 606-FR 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.