

# PA 250

Highly Recyclable Nylon 12 Laser Sintering Material

## Technical Data Sheet

### POWDER PROPERTIES

### TEST METHOD

### ALM PA 250

Bulk Density	ASTM D1895	0.50 grams/CC
Average Particle Size (D50)	Laser Diffraction	40 microns
Particle Size Range (D10-D90)	Laser Diffraction	30 to 50 microns
Sintered Part Density	ASTM D792	1.01 grams/CC

### THERMAL PROPERTIES

### TEST METHOD

### ALM PA 250

Melting Point	ASTM D3418	181 Deg C
Melt Flow Rate (3min, 5.0kg, 235C)	ASTM D1238	40 grams/10min

### MECHANICAL PROPERTIES

### TEST METHOD

### ALM PA 250

Heat Deflection Temp @ 0.45 MPa	ASTM D648	179 Deg C
Heat Deflection Temp @ 1.82 MPa	ASTM D648	86 Deg C
Ultimate Tensile Strength (XY)	ASTM D638	46 MPa / 6,700 psi
Ultimate Tensile Strength (Z)	ASTM D638	36 MPa / 5,200 psi
Tensile Modulus (XY)	ASTM D638	1,740 MPa / 490 kpsi
Tensile Modulus (Z)	ASTM D638	2,137 MPa / 256 psi
Elongation at Break (XY)	ASTM D638	16%
Elongation at Break (Z)	ASTM D638	4%
Surface Finish	ISO 4287	9 microns
Volume Resistivity	ASTM D257	3.1 x 10 <sup>14</sup> ohm-cm

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 250 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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