PA 650

Nylon 12 Laser Sintering Material

Technical Data Sheet

POWDER PROPERTIES	TEST METHOD	ALM PA 650
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
Sintered Part Density	ASTM D792	1.02 grams/CC

THERMAL PROPERTIES	TEST METHOD	ALM PA 650
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 650
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 J/m
IZOD Impact Strength (Notched)	ASTM D256	220 J/m
Volume Resistivity (22C, 50%RH, 500V)	ASTM D257	3.1 x 10^14 ohm-cm
Surface Resistivity (22C, 50%RH, 500V)	ASTM E257	3.0 x 10^14 ohm
Dielectric Constant (22C, 50%RH, 500V)	ASTM D150	2.9

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