PA 250-ACF

Aluminium/Carbon Fibre Filled Nylon 12
Laser Sintering Material

Technical Data Sheet

POWDER PROPERTIES	TEST METHOD	PA 250-ACF
Density, Bulk	ASTM D 1895	0.62 g/cc
Average Particle Size (D50)	Laser Diffraction	40 µm
Particle Size Range (D10-D90)	Laser Diffraction	30-50 µm
Sintered Part Density	ASTM D 792	1.35 g/cc

THERMAL PROPERTIES	TEST METHOD	PA 250-ACF
Melting Point	ASTM D 3418	184 °C
Melt Flow Rate (3 min., 5.0 kg, 235 °C)	ASTM D 1238	40 g/10 min

MECHANICAL PROPERTIES	TEST METHOD	PA 250-ACF
Heat Deflection Temp. @ 0.45 MPa	ASTM D 648	178 °C
Heat Deflection Temp. @ 1.82 MPa	ASTM D 648	152 °C
Ultimate Tensile Strength (XY)	ASTM D 638	58 MPa / 8,354 psi
Tensile Modulus (XY)	ASTM D 638	5,019 MPa / 728 kpsi
Flexural Modulus (XY)	ASTM D 790	5,040 MPa / 731 kpsi
Elongation at Break (XY)	ASTM D 638	3.9%
IZOD Impact Strength (Unnotched)	ASTM D 256	121 J/m
IZOD Impact Strength (Notched)	ASTM D 256	56 J/m

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-ACF 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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