

TPE 210-S

Flexible Nylon Elastomer Sintering Material

Technical Data Sheet

POWDER PROPERTIES

TEST METHOD

ALM TPE 210-S

Bulk Density	ASTM D1895	0.37 grams/CC
Average Particle Size (D50)	Laser Diffraction	85 microns
Particle Size Range (D10-D90)	Laser Diffraction	20 to 130 microns
Sintered Part Density	ASTM D792	1.03 grams/CC

THERMAL PROPERTIES

TEST METHOD

ALM TPE 210-S

Melting Point	ASTM D3418	178 Deg C
Melt Flow Rate (3min, 2.16kg, 190C)	ASTM D1238	16 grams/10min

MECHANICAL PROPERTIES

TEST METHOD

ALM TPE 210-S

Tensile Modulus	ASTM D638	8 MPa / 1,160 psi
Elongation at Break (uninfiltated)	ASTM D638	110%
Flexural Modulus (-40C)	ASTM D790	23 Mpa / 3,336 psi
Flexural Modulus (23C)	ASTM D790	13 MPa / 1,885 psi
Flexural Modulus (100C)	ASTM D638	3 MPa / 435 psi
Initial Tear Resistance, Die C, 23 Deg C	ASTM D624	6,000 N-m
Initial Tear Resistance, Die C, 100 Deg C	ASTM D624	5,000 N-m
Abrasion Resistance, Taber H-18 Wheel	ASTM D4060	535mg / 1000 cycles
Shore Hardness, uninfiltated	ASTM D2240	40
Volume Resistivity	ASTM D257	1.5E +13 ohm-cm
Surface Resistivity	ASTM D257	1.9E +13 ohm
Dielectric Constant		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 TPE 210-S 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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