AMSOL
ADDITIVE MANUFACTURING SOLUTIONS

Plastic Material Properties	MJF Nylon	SLS Nylon	Polypropylen	Glass-filled Nylon	TPU	Glass-filled Nylon
Material	PA12 Nylon	PA12 Nylon	PP	PA12 GF	TPU 95	PA12 GB
AM Technology	Multi Jet Fusion	Sel. Laser Sintering	Sel. Laser Sintering	Sel. Laser Sintering	Multi Jet Fusion	Multi Jet Fusion
Initial Material Color *	Grey	White	White Yellowish	White	Grey	Grey
Density	1,01 g/cm^3	0,93 g/cm^3	0,9 g/cm^3	1,49 g/cm^3	1,15 g/cm^3	1,3 g/cm^3
Max. Dimensions (mm)	280 x 380 x 380	550 x 550 x 750	700 x 380 x 580	550 x 550 x 750	280 x 380 x 380	280 x 380 x 380
Tensile Strength ASTM D638	48 MPa	48 MPa	27 MPa	27 MPa	17 MPa	30 MPa
Tensil Modulus ASTM D638	1800 MPa	1700 MPa	1200 MPa	4068 MPa		2500 MPa
Elongation at Break ASTM D638	15%	24%	12%	1,40%	440%	10%
Flexural Strength ASTM D790	70 MPa	58 MPa		37 MPa	85 MPa	65 MPa
Heat Distortion Temp. ASTM D648 at 0.45 MPa	175°C	160°C		179°C		175°C

* Plastic Materials can be colored either by being dyed or painted

AMSOL
ADDITIVE MANUFACTURING SOLUTIONS

Resin Material Properties	Opaque Resin	Transparent Resin	Resin
Material	UV Curable Plastic	UV Curable Plastic	UV Curable Plastic
AM Technology	Multi Jet Printing	Stereolithography	Stereolithography
Initial Material Color *	Translucent	Transparent	Grey
Density	1,02 g/cm^3	1,12 g/cm^3	1,19 g/cm^3
Max. Dimensions	28,9 x 18 x 20 cm	150 x 75 x 55 cm	150 x 75 x 55 cm
Tensile Strength ASTM D638	42,4 MPa	50,4 MPa	41 MPa
Tensil Modulus ASTM D638	1463 MPa	2770 MPa	1890 MPa
Elongation at Break ASTM D638	6,83%	15,50%	18%
Flexural Strength ASTM D790	49 MPa	68,7 MPa	62 MPa
Heat Distortion Temp. ASTM D648 at 0.45 MPa	56°C	137°C	62°C

* Resin Materials can be colored with paint

AMSOL
ADDITIVE MANUFACTURING SOLUTIONS

Metal Material Properties	SLM Stainless Steel	SLM Aluminium	EBM Titanium
Material	1.4404	AlSi10Mg	Ti6Al4V
AM Technology	Sel. Laser Melting	Sel. Laser Melting	Electron Beam Melting
Initial Material Color *	Metallic	Metallic	Metallic
Density	7,95 g/cm^3	2,68 g/cm^3	4,42 g/cm^3
Max. Dimensions	50 x 28 x 36,5 cm	50 x 28 x 36,5 cm	20 x 20 x 18 cm
Tensile Strength ASTM D638	633 ± 28 MPa	396 ± 24 MPa	1020 MPa
Yield Strength ASTM D638	549 MPa	305 MPa	950 MPa
Tensil Modulus ASTM D638	184000 MPa	71000 MPa	114000 MPa
Elongation at Break ASTM D638	31% (±6%)	4%	14%

* Metal Materials can be colored either by being dyed or painted