

Plastic Material Properties	MJF PA12	MJF PA11	MJF TPU 90	SLS PA12	SLS PP	SLS PA12 GF
Material Family	Nylon	Polyamide	Polyurethane	Nylon	Polypropylen	Glass-filled Nylon
AM Technology	Multi Jet Fusion	Multi Jet Fusion	Multi Jet Fusion	Sel. Laser Sintering	Sel. Laser Sintering	Sel. Laser Sintering
Initial Material Color *	Grey	Grey	Grey	White	White Yellowish	White
Density	1,01 g/cm ³	1,05 g/cm ³	1,15 g/cm ³	0,93 g/cm ³	0,9 g/cm ³	1,22 g/cm ³
Max. Dimensions (mm)	280 x 380 x 380	280 x 380 x 380	280 x 380 x 380	660 x 365 x 550	660 x 365 x 550	660 x 365 x 550
Tensile Strength ASTM D638	48 MPa	52 MPa	9 MPa	48 MPa	27 MPa	47 - 51 MPa
Tensil Modulus ASTM D638	1800 MPa	1800 MPa	85 MPa	1500 MPa	1200 MPa	3200 MPa
Elongation at Break ASTM D638	20 %	40 - 55 %	150 - 280 %	15 %	12 %	5,5 - 9 %
Flexural Strength ASTM D790	70 MPa	70 MPa		58 MPa		73 MPa
Heat Distortion Temp. ASTM D648 at 0.45 MPa	175°C	185°C		163°C		166°C



Plastic Material Properties	Opaque Resin	Transparent Resin	Resin	FDM PLA	FDM PETG	FDM ASA
Material Family	UV Curable Plastic	UV Curable Plastic	UV Curable Plastic	Polylactic Acid	Polyethylene	Acrylic Styrene
AM Technology	Multi Jet Printing	Stereolithography	Stereolithography	Fused dep. modeling	Fused dep. modeling	Fused dep. modeling
Initial Material Color *	Translucent	Transparent	Grey	Different colors	Different colors	Different colors
Density	1,02 g/cm ³	1,12 g/cm ³	1,19 g/cm ³	1,25 g/cm ³	1,28 g/cm ³	1,07 g/cm ³
Max. Dimensions (mm)	289 x 180 x 200	1500 x 750 x 550	1500 x 750 x 550	1000 x 1000 x 1000	1000 x 1000 x 1000	1000 x 1000 x 1000
Tensile Strength ASTM D638	42,4 MPa	50,4 MPa	41 MPa	Properties depending on print settings		
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			



Metal Material Properties	SLM Stainless Steel	SLM Aluminium	EBM Titanium
Material Family	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 (mm)	500 x 280 x 850	500 x 280 x 850	200 x 200 x 188
Tensile Strength Rm	633 ± 28 MPa	396 ± 24 MPa	1020 MPa
Offset Yield Strength Rp0.2	450 - 500 MPa	259 ± 5 MPa	950 MPa
Elongation at Break	35 - 50 %	5 - 8 %	14 %

