

EP-PA1201 Material Data Sheet

EP-PA1201

PA1201 is nylon PA12 base material, special for SLS technology 3d printing, it is developed by EPLUS and suitable for EP-P3850 or EP-P420 machine. PA1201 powder has higher recycle rate than other PA12 material, we had test with 3:7 (new:old) mixing ratio, the mechanical property decrease with 10%, even mixing over 10 times. The printed part has very high elongation(35%+) compared with other PA 12 (about 15-20%). With dimensional, mechanical and chemical stable property, It has widely application on automobile part, such as electric and prototyping and functional parts and so on.

Printed part colour

White

Mechanical property	Value	Unit	Standard
Tensile Modulus	1200	MPa	ISO 527
Tensile Strength	46	MPa	ISO 527
Strain at break	38	%	ISO 527
Charpy impact strength	38	KJ/m ²	ISO 179
Charpy notched impact strength	7.5	KJ/m ²	ISO 179
Flexural modulus	400	MPa	ISO 178
Flexural Strength	35	MPa	ISO 178

Thermal properties	Value	Unit	Standard
Powder Melting temperature	187	°C	ISO 11357
Heat Distortion Temp @0.45Mpa	120	°C	ISO 75-1/-2

Other properties	Value	Unit	Standard
Printed part Density	0.94	g/cm ³	EPLUS
Powder Density	0.54	g/cm ³	EPLUS
Particle Size (D50)	55	µm	LD

Processing parameters	Value	Unit
Powder Bed Temperature	165-175 ^{*1}	°C
Building Piston Temperature	130	°C

Note *1: The real building temperature should be based on the building temperature test result on certain machine.

The data contained in this document is based on trials carried out by EPlus research centers, these figures are only given for information.

For exposure strategy, please contact us.

