



3DXSTAT™ ESD-Safe Nylon 12 (PA12) 3D Filament

Physical Properties	Standard	Unit	Typical Value
Density	ISO 1183	g/cc	1.14

Mechanical Properties	Standard	Unit	Typical Value
Tensile Strength, Break	ISO 527	MPa	68
Tensile Modulus	ISO 527	MPa	6900
Tensile Elongation, Break	ISO 527	%	3.8
Flexural Strength	ISO 178	MPa	81
Flexural Modulus	ISO 178	MPa	6700

Thermal Properties	Standard	Unit	Typical Value
Glass Transition Temperature (Tg)	DSC	°C	158
Deflection Temperature at 0.45 MPa (66psi)	ISO 75	°C	142

Electrical Property	Standard	Unit	Typical Value
Surface Resistance	ASTM D257	Ohm/sq	$>10^3 - 10^7$

Please note: Extrusion temperatures play a large role in surface resistance of a printed part. Higher extrusion temperatures yield lower surface resistance values. Likewise, lower extrusion temperatures yield higher surface resistance values. Therefore, the surface resistance of a printed part can be 'tuned' to your desired level of conductivity by modifying extrusion temp up or down.

Basic Printing Recommendations

Recommended Nozzle Diameter: Minimum 0.4mm

Layer Height: 0.25mm or 60% of nozzle diameter

Extrusion Temp: 265 - 285°C

Bed Temp: 90-110°C

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