Matter Industries Inc.
Unit 104 - 106, Building B
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m3D
Innovating Tomorrow's Materials

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Technical Data Sheet: PETg ESD Copolyester

Description: Our ESD-safe PETG copolyester filament is engineered to provide a reliable balance of mechanical performance and controlled electrical conductivity. Designed for applications requiring static dissipation, this material helps prevent electrostatic discharge while maintaining the strength, toughness, and ease of printing expected from PETG.

Compared to standard PETG, this formulation offers stable surface resistivity in the dissipative range, making it well suited for electronic housings, fixtures, jigs, and components used in ESD-sensitive environments. It maintains good layer adhesion, low warpage, and consistent printability on open-frame printers, while providing improved durability over PLA-based ESD materials.

With its combination of mechanical integrity and electrostatic control, this material is ideal for functional parts where both performance and ESD protection are required.

Physical Properties	Standard	Units	Recorded Value
Density	ISO 1183	g/mL	1.27

Mechanical Properties	Standard	Unit	Recorded Value
Tensile Strength, Break	ISO 527	MPa	50
Elongation at break	ISO 527	%	120
Flexural Strength	ISO 178	MPa	70
Flexural Modulus	ISO 178	MPa	2060
IZOD Impact, charpy	GB/T 1843	kJ/m^2	8

Thermal Properties	Standard	Unit	Recorded Value
Glass Transition Temp. Tg	DSC	°C	73
Heat Deflection Temperature at 0.45 MPa	ISO 75	°C	75

Electrical Properties	Standard	Unit	Recorded Value
Surface Resistance	ASTM D257	Ω / sq	$\sim 10^7$

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Printer Settings:
Extruder Temperature: 230-245°C
Build Plate Temperature: 75°C
Fan speed: 0-20%
Print Speed: < 1000 mm/s
Max Volumetric Flow: < 25 mm^3 / s on 800 micron nozzles

Notice:
Typical values, not specifications. Performance varies with printer, part geometry, and settings. Users must verify fitness for purpose and comply with regulations. Matter Industries Inc. provides no warranties and assumes no liability.