



# Technical Data Sheet

Polylactic Acid (PLA) Carbon Nanotube Matrix (CNT)  
Antistatic Grade Conductive Filament

## General Information

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Conductive polylactic Acid (PLA) filament (Antistatic compound) stands as the most widely used 3D printing material in the industry. This premium bioplastic product is derived from renewable natural resources and is biodegradable. Antistatic PLA filaments can be used to create enclosures for devices operating in environments where flammable gasses or dust are present. Static electricity buildup can be dangerous in these areas, and this filament helps mitigate that risk.

### Features & Benefits

- Low odor
- Non-toxic
- Renewably sourced
- Bio-friendly
- Minimal warping and shrinking
- Can be painted

### Available in Black Only

### Available Sizes

See website for details

## Quality

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All ABC3D filaments are produced using a laser micrometer, ensuring lowest tolerance for the 3D printing industry. Each box contains the same material, size, and color. All filaments are vacuumed and sealed with desiccant. Rest assured, our products are carefully crafted to deliver consistent excellence in every print.

## Storage

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Store between 17 to 28 °C in a dry area, away from sunlight. Keep sealed in an airtight container, away from humidity.

Physical Properties*	Standard	Unit	Value
Density	ASTM D1505	g/cm <sup>3</sup>	1.24±0.02
Mechanical Properties*	Standard	Unit	Value
Tensile modulus	ASTM D638-14	MPa	3260±34
Tensile elongation	ASTM D638-14	%	3.5±0.2
Tensile strength	ASTM D638-14	MPa	64.3±4.3
Zero-shear viscosity	ASTM D4440-15	Pa.s	4.6×10 <sup>3</sup>
Electrical Properties*	Standard	Unit	Value
Electrical resistivity	ASTM D257	Ω.cm	6.2×10 <sup>10</sup>

\* All the physical, mechanical and electrical data belong to compression molded samples.

Print Settings	Unit	Value
Nozzle temperature	°C	200-240
Heated bed temperature	°C	40-60
Print speed	mm/s	30-70
Extrusion width	mm	0.45
Volume flow rate	mm <sup>3</sup> /s	2-3

## Disclaimer

The technical data contained on this data sheet is furnished without charge or obligation and accepted at the recipient's sole risk. This data should not be used to establish specifications limits or used alone as the basis of design. The data provided is not intended to substitute any testing that may be required to determine fitness for any specific use.