



Technical Data Sheet: CarbonX™ Carbon Fiber ezPC Polycarbonate 3D Printing Filament

Physical Properties	Standard	Unit	Typical Value
Density	ISO 1183	g/cc	1.36

Mechanical Properties	Standard	Unit	Typical Value
Tensile Strength, Break	ISO 527	MPa	73
Tensile Modulus	ISO 527	MPa	6980
Tensile Elongation, Break	ISO 527	%	2.1
Flexural Strength	ISO 178	MPa	85
Flexural Modulus	ISO 178	MPa	6540

Thermal Properties	Standard	Unit	Typical Value
Glass Transition Temperature (Tg)	DSC	°C	127
Deflection Temperature at 0.45 MPa (66psi)	ISO 75	°C	119

Electrical Property	Standard	Unit	Typical Value
Surface Resistance	ASTM D257	Ohm/sq	>10 <sup>9</sup>

#### Printed Specimen Conditions

Printer: Open Source FDM/FFF

Nozzle: 0.4mm

Layer Height: 0.25mm

Infill: 100%, +/- 45°

Extrusion Temp: 275°C

Bed Temp: 95°C

Specimen Orientation: XY Flat

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