

# PC

## Polycarbonate

Polycarbonate is a thermoplastic that is most prominently known for its incredible strength and impact resistance. The basis of bulletproof glass, polycarbonate is lightweight and exhibits a translucency that is superior to other FFF/FDM 3D printing materials. Polycarbonate also boasts heat resistance, is flame-retardant, and insulates electricity, making it essential to use in electrical components and hardware.

Mechanical Properties	Value	Unit
Ultimate Tensile Strength	69.9	MPa
Tensile Modulus		MPa
Elongation at Break	11.9	%
Flexural Strength		MPa
Flexural Modulus		MPa
Physical Properties	Value	Unit
Melt Flow Rate (at 300°C @ 1.2Kg)	15	g/10min
Vicat Softening Point	298	°F
Mold Shrinkage	0.005 - 0.007	in/in
Rockwell Hardness	M-77	M-Scale

Thermal Properties	Standard	Value	Unit
Coefficient of Linear Expansion		6.0-8.0 x10 <sup>-5</sup>	/cm/cm°C
Thermal Conductivity		0.2	W/m°C
Physical Properties	Standard	Value	Unit
Density	ASTM D792	1.2	g/cm <sup>3</sup>
Certifications and Tests	Standard	Value	Unit
Flammability (UL 94)		V-2 (1.5mm)	
USP Class VI Certified			

### Characteristics

- Incredible strength
- Impact Resistant
- Lightweight
- Translucency

- Heat resistance
- Flame retardant
- Insulates electricity

### Applications

- Functional Prototypes
- Widely used in the construction, transportation, and automotive industries
- Electrical and telecommunications hardware

- Data storage, such as CDs, DVDs, and Blu-Ray Discs
- Consumer products like sunglasses, phone and computer cases, water bottles, and food containers

### Considerations

- Hygroscopic
- Vulnerable to hydrolysis
- UV-sensitive

**Printing Skill & Experience:**  Beginner  Intermediate  Advanced  Expert

- Be sure to use the recommended WolfBite MEGA.
- High build plate temperatures required to ensure good adhesion.

### Printer Compatibility

<input type="checkbox"/> 3ntr A2v4	<input type="checkbox"/> 3ntr A4v4	<input checked="" type="checkbox"/> EVO-T	<input checked="" type="checkbox"/> EVO22-T
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Available colors from [TRAK](#): Black, Clear

Available colors from [Airwolf 3D](#): Black, Clear, Dark Grey, Grey, White