

PC-ABS

Polycarbonate Acrylonitrile Butadiene Styrene

PC-ABS (polycarbonate + acrylonitrile butadiene styrene) is a premium high-heat 3D printing filament. PC-ABS polymer blend has the mechanical properties & high-heat resistance of PC with the printability of ABS, and allows for the printing of functional prototypes and production parts with very fine detail and excellent surface quality. PC-ABS doesn't change its properties over the course of time and withstands exposure to chemicals including salts, acids, and alkalis.

Mechanical Properties	Standard	Value	Unit
Ultimate Tensile Strength	ASTM D638	46.1	MPa
Tensile Modulus	ASTM D638	2006	MPa
Elongation at Break			%
Flexural Strength	ASTM D790	71.6	MPa
Flexural Modulus	ASTM D790	1910	MPa
Hardness Shore	Standard	Value	Unit
Hardness			

Thermal Properties	Standard	Value	Unit
HDT @ 0.45 MPa			°C
Glass Transition Temp	ASTM D638	98	°C
Physical Properties	Standard	Value	Unit
Density		1.1	g/cm ³
Certifications and Tests	Standard	Value	Unit
Flammability (UL 94)			
USP Class VI Certified			

Characteristics

- Superior durability and high tensile strength
- UV, impact and high temperature resistant
- Withstands exposure to chemicals including salts, acids, and alkalis
- Beautiful low-gloss surface finish helps hide layer lines and makes highly technical-looking printed parts

Applications

- Functional and high durability prototypes
- End use parts, consumer products
- Toolmaking and housings
- Construction elements
- Automotive components exposed to impacts and hazardous substances
- functional mechanical parts
- casings

Considerations

- Highly hygroscopic (absorbs moisture):
- Requires printing to be done at high extruder temperatures and high bed temperatures

Printing Skill & Experience: Beginner Intermediate Advanced Expert

- Easier to print than PC, yet tougher than ABS

Printer Compatibility

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