ePC

Technical Data Sheet

3D printing materials with excellent mechanical properties, high toughness and impact resistance, stable and durable; temperature resistance, heat distortion temperature up to 80 ℃.

Material Status	Mass Production
Characteristics	• High toughness • High impact resistance • Heat resistance
Applications	• Machinery • Electrical and electronic • Car • Wear
Form	• Filament
Processing method	• 3D Print, FDM Print

	Testing method	Typical value
Physical Properties		
Density	GB/T 1033	1.12 g/cm³
Melt Flow Index	GB/T 3682	19.5 (300°C/1.2kg)
Mechanical Properties		
Tensile Strength	GB/T 1040	54.88 MPa
Elongation at Break	GB/T 1040	150.24 %
Flexural Strength	GB/T 9341	63.41 MPa
Flexural Modulus	GB/T 9341	1073 MPa
IZOD Impact Strength	GB/T 1843	13.2 kJ/㎡
Thermal Properties		
Heat distortion Temperature	GB/T 1634	80 (℃,0.45MPa)
Continuous Service Temperature	IEC 60216	N/A
Maximum (short term) Use Temperature		N/A
Electrical Properties		
Insulation Resistance	DIN IEC 60167	N/A
Surface Resistance	DIN IEC 60093	N/A

Wuhan University Building A403-I,A901,No.6 Yuexing 2 Road,Nanshan District,Shenzhen,Guangdong

China

Tel +86 755 86581960
fax +86 755 26031982
Email: bright@brightcn.net

www.esun3d.net

Recommended printing parameters

Extruder Temperature	240 - 270°C
Build Platform Temperature	80-120°C
Fan Speed	0%
Printing Speed	20 - 50mm/s

Based on 0.4 mm nozzle and Simplify 3D v.4.1.2. Printing conditions may vary with different nozzle diameters

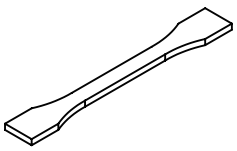
Drying Recommendations

N/A

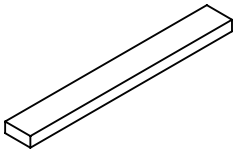
Notes

1.It's better to dry the ePC filament before printing(70℃/>6H).the eBOX is suggested to use when printing the ePC filament.
2.The shingkage of ePC material is high.So pls use printer which has chamber to print the ePC filament.

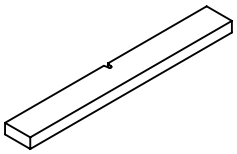
Mechanical Properties



Tensile testing specimen GB/T 1040



Flexural testing specimen GB/T 9341



Impact testing specimen GB/T 1043

The physical properties, mechanical properties, thermal properties, and electrical properties of the filament are obtained based on the injection molding spline test.
Print test condition：

Extruder Temperature	230-290°C
Build Platform Temperature	100°C
Outline/Perimeter Shells	4
Top/Bottom Layers	4
Infill Percentage	20%
Fan speed	0%
Printing speed	40mm/s

Based on 0.4 mm nozzle and Simplify 3D v.4.1.2.

Notice

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