PC-FR(UL94-V0)

INDUSTRIAL GRADE MATERIALS FOR FDM 3D PRINTING

MATERIAL NAME
PC-FR(UL94-V0)

COLOR
White

PROCESS
FDM

PRODUCT DESCRIPTION

PC-FR(UL94-V0) could achieve V0 performance in the UL94 flame retardancy test and displays excellent toughness, strength and heat resistance. This filament opens new applications in the automotive, railway and aerospace industries.

TYPICAL APPLICATIONS

- Functional prototypes and end products
- Functional prototyping and testing
- Moving and assembled parts
- Form and fit testing

PRODUCT SAFETY

Engineering plastics are fine to touch under normal circumstances, but a very small number of people may have allergic reactions to the additives in them. When melted at high temperatures, irritating gases may be released.

PRODUCT DELIVERY & WAREHOUSING

- **GOOD RESISTANCE**
  Good resistance to many acids, bases, oils.

- **WEAKNESSES**
  May be attacked by some chlorinated hydrocarbons, ketones and esters. Strong bases may cause PC to hydrolyze.

PROPERTIES OF PRINTED MATERIAL

Properties	Test Method	Value
Hardness	/	/
Flexural modulus (Mpa)	ISO 178, GB/T 9341	XY: 2518 ± 53 MPa Z: N/A
Flexural strength (Mpa)	ISO 178, GB/T 9341	XY: 96.6 ± 1.3 MPa Z: N/A
Tensile modulus (Mpa)	ISO 527, GB/T 1040	XY: 2634 ± 182 MPa Z: 2743 ± 72 MPa
Tensile strength (Mpa)	ISO 527, GB/T 1040	XY: 67 ± 4.5 MPa Z: 46 ± 4.8 MPa
Elongation at break	ISO 527, GB/T 1040	XY: 3.49 ± 0.7 % Z: 2.2 ± 0.3 %
Poisson's Ratio	/	/
Impact strength notched Izod (J/m)	ISO 179, GB/T 1043	XY: 11.7 ± 1.6 KJ/m² Z: N/A
Heat deflection temperature (°C)	ISO 75	HDT @0.45 MPa: 110°C HDT @1.8 MPa: 107°C
Glass transition,Tg (°C)	DSC, 10°C/min	115 °C
Coefficient of themal expension(/°C)	/	/
Density (g/cm³)	ISO1183, GB/T1033	1.2 g/cm³ @23°C

Tips: Want to explore a wider range of materials? Check out *https://www.unionfab.com/materials*