Fused Deposition Modeling (FDM)

PC (Polycarbonate) (Industrial grade)

Key Features

Impact resistance • Stiffness • Heat resistance • Dimensional stability

Applications

Prototyping • End-use parts • Jigs and fixtures • Tooling • Automotive • Engineering • Consumer goods

Product Description

Polycarbonate FDM filament offers remarkable strength, dimensional stability, and heat resistance, along with high impact strength, ensuring printed parts maintain their shape and accuracy. These properties make it suitable for high-durability applications, including functional prototyping, manufacturing tooling, and low-volume end-use parts. Polycarbonate is an ideal choice for 3D printed prototypes, parts, and tools requiring superior material properties compared to ABS or ASA.

Properties

Tensile modulus (XZ, ZX)	2,250, 2,130 MPa
Tensile strength at break (XZ, ZX)	57.3, 35.5 MPa
Elongation at break (XZ, ZX)	5.2, 2.0%
Flexural strength at 5% strain	90 MPa
Flexural modulus (XZ, ZX)	2,150, 1,880 MPa
Heat deflection temperature (0.45 MPa)	144°C
Heat deflection temperature (1.80 MPa)	140.7°C
Glass transition temperature	142.5°C
Density	1.20 g/cm^3
Thermal conductivity (ASTM E1952 @30C)	0.2845 W/m*K
Flame retardancy	UL 94 HB

Reference

For more detailed source information, please consult the original document linked here. We encourage users to verify the data's relevance and suitability for their specific needs.