

Polycarbonate (PC)

A true industrial thermoplastic, polycarbonate (PC) is widely used throughout industry. When combined with the Fused Deposition Modeling (FDM) systems by Stratasys, polycarbonate is ideal for the rapid production of prototypes, tooling, and direct (tool-less) manufacturing of production parts.

| Mechanical Properties ¹ | Test Method | Imperial | Metric |
|------------------------------------|-------------|-----------------------------|-----------------------------|
| Tensile Strength, Type 1, 0.125 | ASTM D638 | 7,600 psi | 52 MPa |
| Tensile Modulus, Type 1, 0.125 | ASTM D638 | 290,000 psi | 2,000 MPa |
| Tensile Elongation, Type 1, 0.125 | ASTM D638 | 3% | 3% |
| Flexural Strength | ASTM D790 | 14,000 psi | 97 MPa |
| Flexural Modulus | ASTM D790 | 310,000 psi | 2,137 MPa |
| IZOD Impact, notched | ASTM D256 | 1 ft-lb/in | 53.39 J/a |
| IZOD impact, un-notched | ASTM D256 | 5 ft-lb/in | 266.95 J/a |
| Thermal properties | Test Method | Imperial | Metric |
| Heat Deflection Temperature (HDT) | ASTM D648 | 260° F | 127° C |
| Glass Transition (T _g) | DMA (SSYS) | 322° F | 161° C |
| Coefficient of Thermal Expansion | | 3.8E-05 in/in/F | |
| Melt Point | | Not Applicable ² | Not Applicable ² |
| Other | Test Method | Value | |
| Specific Gravity | ASTM D792 | 1.2 | |
| Vertical Burning Test | UL94 | V2, 1.1 mm | |
| Rockwell Hardness | ASTMD785 | R118 | |
| Dielectric S (kV/mm) | IEC 60112 | 15 | |
| Dielectric C (60Hz) | IEC 60250 | 3.17 | |

APPEARANCE

- White

SYSTEM AVAILABILITY

- FDM Titan **TI**
- FDM Vantage **SE**
- FDM Vantage **S**
- FDM Vantage **i** (when configured with PC)

The information presented includes typical values intended for reference and comparison purposes only. They should not be used for design specifications or quality control purposes. End-use material performance will be impacted by, but not limited to, part design, end-use conditions, test conditions, etc. Actual values will vary with build conditions.

¹ Build orientation is down, on side edge. ² Due to amorphous nature, material does not exhibit a melting point.

For more information about Stratasys systems and materials, contact your representative +1 888.480.3548 or visit www.stratasys.com

