

Stratasys® Polycarbonate

Category : Polymer , Rapid Prototyping Polymer , Thermoplastic , Polycarbonate (PC)

Material Notes:

A true industrial thermoplastic, PC (polycarbonate) is widely used in automotive, aerospace, medical and many other applications. PC offers accuracy, durability and stability, creating strong parts that withstand functional testing. It also has superior mechanical properties to ABS and a number of other thermoplastics. When combined with Stratasys FDM (Fused Deposition Modeling) systems, PC gives you Real Parts, for producing design verification prototypes and manufacturing end-use parts. Information provided by Stratasys®

Order this product through the following link:

http://www.lookpolymers.com/polymer_Stratasys-Polycarbonate.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.20 g/cc	1.20 g/cc	ASTM D792

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell R	115	115	ASTM D785
Tensile Strength, Ultimate	52.0 MPa	7540 psi	Type 1, 2"/min; ASTM D638
Elongation at Break	3.0 %	3.0 %	ASTM D638
Tensile Modulus	2.00 GPa	290 ksi	Type 1, 2"/min; ASTM D638
Flexural Strength	97.0 MPa	14100 psi	ASTM D790
Flexural Modulus	2.137 GPa	309.9 ksi	ASTM D790
Izod Impact, Notched	0.5339 J/cm	1.000 ft-lb/in	ASTM D256
Izod Impact, Unnotched	2.6695 J/cm	5.0011 ft-lb/in	ASTM D256

Thermal Properties	Metric	English	Comments
CTE, linear	68.4 $\mu\text{m}/\text{m}\cdot\text{Å}^\circ\text{C}$ @Temperature 20.0 $\text{Å}^\circ\text{C}$	38.0 $\mu\text{in}/\text{in}\cdot\text{Å}^\circ\text{F}$ @Temperature 68.0 $\text{Å}^\circ\text{F}$	ASTM D696
Deflection Temperature at 0.46 MPa (66 psi)	138 $\text{Å}^\circ\text{C}$	280 $\text{Å}^\circ\text{F}$	ASTM D648
Deflection Temperature at 1.8 MPa (264 psi)	127 $\text{Å}^\circ\text{C}$	261 $\text{Å}^\circ\text{F}$	ASTM D648
Glass Transition Temp, Tg	161 $\text{Å}^\circ\text{C}$	322 $\text{Å}^\circ\text{F}$	DSC (SSYS)
Flammability, UL94	V-2 @Thickness 1.10 mm	V-2 @Thickness 0.0433 in	

Electrical Properties	Metric	English	Comments
Dielectric Constant	2.96	2.96	IEC 60250
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
	3.17	3.17	IEC 60250
	@Frequency 60.0 Hz	@Frequency 60.0 Hz	
Dielectric Strength	15.0 kV/mm	381 kV/in	IEC 60112

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