STRATASYS®

Polycarbonate

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. Refer to the FDM System Material Availability spec sheet for system availability and color options.

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 @ 66 psi	ASTM D648	280° F	138° C
Heat Deflection Temperature @ 264 psi	ASTM D648	261° F	127° C
Glass Transition Temperature (Tg)	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
Rockwell Hardness	ASTM D785	R115
Flame Classification	UL 94	V2, 1.1 mm
Dielectric Strength kV/mm	IEC 60112	15
Dielectric Constant @ 60Mhz	IEC 60250	3.17
Dielectric Constant @ 1Mhz	IEC 60250	2.96

The information presented are 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 can be impacted (+/-) by, but not limited to, part design, end-use conditions, test conditions, etc. Actual values will vary with build conditions. Tested parts were built on Titan Ti, 0.010 inch slice (0.245mm).

[1] Build orientation is on side edge. [2] Do to amorphous nature, material does not display a melting point.

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

Stratasys Inc.
7665 Commerce Way
Eden Prairie, MN 55344-2020
+1 888 480 3548 (US Toll Free)
+1 952 937 3000 (Main)
+1 952 937 0070 (Fax)
www.stratasys.com
info@stratasys.com

Stratasys GmbH
Weismüllerstrasse 27
60314 Frankfurt am Main
Germany
+49 69 420 9943 0 (Tel)
+49 69 420 9943 33 (Fax)
europe@stratasys.com

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