

PC-ISO

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PC-ISO (polycarbonate-ISO), an industrial thermoplastic, which in its raw state, is biocompatible (ISO 10993 USP Class VI)' and can be gamma or EtO sterilized. PC-ISO is commonly used in food and drug packaging and medical device manufacturing because of the material's strength and medical compatibility. When combined with a Fortus® 3D Production system, PC-ISO gives you Real Parts™ that can be used for conceptual modeling, functional prototyping, and end-use parts.



MECHANICAL PROPERTIES ¹	TEST METHOD	ENGLISH	METRIC
Tensile Strength (Type 1, 0.125", 0.2" / min)	ASTM D638	8,300 psi	57 MPa
Tensile Modulus (Type 1, 0.125", 0.2" / min)	ASTM D638	289,800 psi	2,000 MPa
Tensile Elongation (Type 1, 0.125", 0.2" / min)	ASTM D638	4%	4%
Flexural Strength (Method 1, 0.05" / min)	ASTM D790	13,100 psi	90 MPa
Flexural Modulus (Method 1, 0.05" / min)	ASTM D790	310,400 psi	2,100 MPa
IZOD impact, notched (Method A, 23 C)	ASTM D256	1.6 ft-lb/in	86 J/m
IZOD impact, un-notched (Method A, 23 C)	ASTM D256	1.6 ft-lb/in	53 J/m

THERMAL PROPERTIES ²	TEST METHOD	ENGLISH	METRIC
Heat Deflection(HDT)@66 psi	ASTM D648	271 oF	133 oC
Heat Deflection(HDT)@264 psi	ASTM D648	260 oF	127 oC
Glass Transition(Tg)	DMA(SSYS)	322 oF	161 oC
Vicat Softening	ISO 306	282 oF	139 oC
Melt Point	-----	Not Applicable	Not Applicable

ELECTRICAL PROPERTIES ⁴	TEST METHOD	VALUE RANGE
Volume Resistivity	ASTM D257	1.5x10e14 - 8.0x10e13 ohms
Dielectric Constant	ASTM D150-98	3.0 - 2.8
Dissipation Factor	ASTM D150-98	.0009 - .0005
Dielectric Strength	ASTM D149-09, Method A	370 - 70 V/mm

OTHER ²	TEST METHOD	VALUE
Specific Gravity	ASTM D792	1.2
Flame Classification	UL 94	HB

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 Fortus 400mc@ 0.010" (0.254 mm) slice. Product specifications are subject to change without notice.

The performance characteristics of these materials may vary according to application, operating conditions, or end use. Each user is responsible for determining that the Stratasys material is safe, lawful, and technically suitable for the intended application, as well as for identifying the proper disposal (or recycling) method consistent with applicable environmental laws and regulations. Stratasys makes no warranties of any kind, express or implied, including, but not limited to, the warranties of merchantability, fitness for a particular use, or warranty against patent infringement.

¹Build orientation is on side long edge.

²Literature value unless otherwise noted.

³Due to amorphous nature, material does not display a melting point.

⁴All Electrical Property values were generated from the average of test plaques built with default part density (solid). Test plaques were 4.0 x 4.0 x 0.7 inches (102 x 102 x 2.5 mm) and were built both in the flat and vertical orientation. The range of values is mostly the result of the difference in properties of test plaques built in the flat vs. vertical orientation.

⁵0.005 inch (0.127 mm) layer thickness not available for Fortus 900.

About Proto3000

Proto3000 connects companies and individuals to the digital tools they need in order to achieve greater capability, scalability, and efficiency. We are a company rooted in providing solutions, and through the development of our product and service portfolio, we are committed to finding the one that is right for you. Having worked with thousands of companies, from various industries, we have gained an understanding of the digital demands required in research and development, product development, and manufacturing. Our suite of solutions have been carefully selected to ensure that you can meet these demands, while positioning your business for sustainable growth and a competitive advantage.

Our business operates in four international market segments; Product Development, Manufacturing, Engineering, and Dentistry. Our solutions include rapid prototyping, 3D printing, engineering design, laser scanning and digital dental products and services.