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

<table>
<thead>
<tr>
<th>Test Method</th>
<th>Value</th>
<th>English Value</th>
<th>Metric Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tensile Strength (Type 1, 0.125&quot;, 0.2&quot;/min)</td>
<td>ASTM D638</td>
<td>8,300 psi</td>
<td>57 MPa</td>
</tr>
<tr>
<td>Tensile Modulus (Type 1, 0.125&quot;, 0.2&quot;/min)</td>
<td>ASTM D638</td>
<td>289,800 psi</td>
<td>2,000 MPa</td>
</tr>
<tr>
<td>Tensile Elongation (Type 1, 0.125&quot;, 0.2&quot;/min)</td>
<td>ASTM D638</td>
<td>4%</td>
<td>4%</td>
</tr>
<tr>
<td>Flexural Strength (Method 1, 0.05&quot;/min)</td>
<td>ASTM D790</td>
<td>13,100 psi</td>
<td>90 MPa</td>
</tr>
<tr>
<td>Flexural Modulus (Method 1, 0.05&quot;/min)</td>
<td>ASTM D790</td>
<td>310,400 psi</td>
<td>2,100 MPa</td>
</tr>
<tr>
<td>IZOD Impact, notched (Method A, 23°C)</td>
<td>ASTM D256</td>
<td>1.6 ft-lb/in</td>
<td>86 J/m</td>
</tr>
<tr>
<td>IZOD Impact, un-notched (Method A, 23°C)</td>
<td>ASTM D256</td>
<td>1 ft-lb/in</td>
<td>53 J/m</td>
</tr>
</tbody>
</table>

### Thermal Properties

<table>
<thead>
<tr>
<th>Test Method</th>
<th>Value</th>
<th>English Value</th>
<th>Metric Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heat Deflection (HDT) @ 66 psi</td>
<td>ASTM D648</td>
<td>271°F</td>
<td>133°C</td>
</tr>
<tr>
<td>Heat Deflection (HDT) @ 264 psi</td>
<td>ASTM D648</td>
<td>260°F</td>
<td>127°C</td>
</tr>
<tr>
<td>Glass Transition (Tg)</td>
<td>DMA (SSYS)</td>
<td>322°F</td>
<td>161°C</td>
</tr>
<tr>
<td>Vicat Softening</td>
<td>ISO 306</td>
<td>282°C</td>
<td>139°C</td>
</tr>
<tr>
<td>Melt Point</td>
<td>Not Applicable³</td>
<td>Not Applicable³</td>
<td></td>
</tr>
</tbody>
</table>

### Electrical Properties

<table>
<thead>
<tr>
<th>Test Method</th>
<th>Value Range</th>
<th>Value Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volume Resistivity</td>
<td>ASTM D257</td>
<td>1.5x10e14 - 8.0x10e13 ohms</td>
</tr>
<tr>
<td>Dielectric Constant</td>
<td>ASTM D150-98</td>
<td>3.0 - 2.8</td>
</tr>
<tr>
<td>Dissipation Factor</td>
<td>ASTM D150-98</td>
<td>.0009 - .0005</td>
</tr>
<tr>
<td>Dielectric Strength</td>
<td>ASTM D149-09, Method A</td>
<td>370 - 70 V/mm</td>
</tr>
</tbody>
</table>

### Other

<table>
<thead>
<tr>
<th>Test Method</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specific Gravity</td>
<td>ASTM D792</td>
</tr>
<tr>
<td>Flame Classification</td>
<td>UL 94</td>
</tr>
</tbody>
</table>
At the core: Advanced FDM Technology™
Fortus systems are based on patented Stratasy FDM (Fused Deposition Modeling) technology. FDM is the industry’s leading additive manufacturing technology, and the only one that uses production grade thermoplastics, enabling the most durable parts.

Fortus systems use a wide range of thermoplastics with advanced mechanical properties so your parts can endure high heat, caustic chemicals, sterilization, and high impact applications.

No special facilities needed
You can install a Fortus 3D Production System just about anywhere. No special venting is required because Fortus systems don’t produce noxious fumes, chemicals, or waste.

No special skills needed
Fortus 3D Production Systems are easy to operate and maintain compared to other additive fabrication systems because there are no messy powders or resins to handle and contain. They’re so simple, an operator can be trained to operate a Fortus system in less than 30 minutes.

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Fine details. Smooth surface finishes. Accuracy. Strength. The best way to see the advantages of a Fortus 3D Production System is to have your own part built on a Fortus system. Get your free part at: www.fortus.com/benchmark.

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**System Availability** | **Layer Thickness Capability** | **Support Structure** | **Available Colors**
--- | --- | --- | ---
Fortus 400mc | 0.013 inch (0.330 mm) | BASS | White
Fortus 900mc | 0.010 inch (0.254 mm) | | Translucent Natural
| 0.007 inch (0.178 mm) | |

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 Stratasy 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.

*It is the responsibility of the finished device manufacturer to determine the suitability of all the component parts and materials used in their finished products.

1. Build orientation is on side long edge.

2. Literature value unless otherwise noted.

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

4. All 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 0.1 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.

For more information about Fortus systems, materials and applications, call 888.480.3548 or visit www.fortus.com

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