

# ABSplus-P430

for Fortus 3D Production Systems

**FORTUS**  
3D PRODUCTION SYSTEMS

Stratasys ABSplus-P430 is a true production-grade thermoplastic and is an ideal material for conceptual modeling, functional prototyping, manufacturing tools, and end-use-parts. The marriage of ABSplus-P430 with Fortus 3D Production Systems gives you the ability to create real parts directly from digital files that are stronger, smoother and with high feature detail.



Mechanical Properties <sup>1</sup>	Test Method	English	Metric
Tensile Strength (Type 1, 0.125", 0.2"/min)	ASTM D638	5,300 psi	37 MPa
Tensile Modulus (Type 1, 0.125", 0.2"/min)	ASTM D638	330,000 psi	2,320 MPa
Tensile Elongation (Type 1, 0.125", 0.2"/min)	ASTM D638	3%	3%
Flexural Strength (Method 1, 0.05"/min)	ASTM D790	7,600 psi	53 MPa
Flexural Modulus (Method 1, 0.05"/min)	ASTM D790	320,000 psi	2,250 MPa
IZOD Impact, notched (Method A, 23°C)	ASTM D256	2.0 ft-lb/in	106 J/m

Thermal Properties <sup>2</sup>	Test Method	English	Metric
Heat Deflection (HDT) @ 66 psi	ASTM D648	204°F	96°C
Heat Deflection (HDT) @ 264 psi	ASTM D648	180°F	82°C
Coefficient of Thermal Expansion	ASTM E831	4.90 E -05 in/in/°F	-----
Melt Point	-----	Not Applicable <sup>3</sup>	Not Applicable <sup>3</sup>

Electrical Properties <sup>4</sup>	Test Method	Value Range
Volume Resistivity	ASTM D257	3.0 x 10e14 - 6.0 x 10e13 ohms
Dielectric Constant	ASTM D150-98	2.9 - 2.3
Dissipation Factor	ASTM D150-98	.0053 - .0046
Dielectric Strength	ASTM D149-09, Method A	320 - 100 V/mil

Other <sup>2</sup>	Test Method	Value
Specific Gravity	ASTM D792	1.04



System Availability	Layer Thickness Capability	Support Structure	Available Colors
Fortus 250mc	0.013 inch (0.330 mm) 0.010 inch (0.254 mm) 0.007 inch (0.178 mm)	Soluble Supports	<input type="checkbox"/> Ivory <input type="checkbox"/> White <input checked="" type="checkbox"/> Black <input checked="" type="checkbox"/> Dark Grey <input checked="" type="checkbox"/> Red <input checked="" type="checkbox"/> Blue <input checked="" type="checkbox"/> Olive Green <input checked="" type="checkbox"/> Nectarine <input checked="" type="checkbox"/> Fluorescent Yellow <input type="checkbox"/> Custom Colors

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. 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. Stratasy 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.

<sup>1</sup>Build orientation is on side long edge.

<sup>2</sup>Literature value unless otherwise noted.

<sup>3</sup>Due to amorphous nature, material does not display a melting point.

<sup>4</sup>All electrical property values were generated from the average of test plaques built with default part density (sparse). 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.

## 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.

## Get your benchmark on the future of manufacturing

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](http://www.fortus.com/benchmark).

For more information about Fortus systems, materials and applications, call **888.480.3548** or visit [www.fortus.com](http://www.fortus.com)

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ISO 9001:2008 Certified

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