

ABSplus is a true production-grade thermoplastic that is durable enough to perform virtually the same as production parts. When combined with Dimension 3D Printers, ABSplus is the ideal solution to printing 3D models in an office environment.

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 Delamination	ASTM D790	4,500 psi	31 MPa
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
Glass Transition Temperature (Tg)	DMA (SSYS)	226°F	108°C
Melt Point	-----	Not Applicable <sup>3</sup>	Not Applicable <sup>3</sup>
Coefficient of Thermal Expansion	ASTM E831	4.90E-05 in/in/°F	-----

Electrical Properties <sup>4</sup>	Test Method	Value Range
Volume Resistivity	ASTM D257	3.0x10e14 - 6.0x10e13 ohms
Dielectric Constant	ASTM D150-98	2.9 - 2.6
Dissipation Factor	ASTM D150-98	.0053 - .0046
Dielectric Strength	ASTM D149-09, Method A	320 - 100 V/mm
Dielectric Strength	IEC 60112	28.0 kV/mm

Other <sup>2</sup>	Test Method	Value
Specific Gravity	ASTM D792	1.04
Flame Classification	UL94	HB (0.09", 2.50mm)
UL File Number	-----	E345258

System Availability	Layer Thickness Capability	Support Structure	Available Colors
uPrint SE uPrint SE Plus Dimension Elite Dimension SST 1200es Dimension BST 1200es	0.013 inch (0.330 mm) 0.010 inch (0.254 mm) 0.007 inch (0.178 mm) <sup>5</sup>	Soluble Supports  Breakaway Supports (BST 1200es only)	<div style="display: flex; flex-direction: column; gap: 5px;"> <div><span style="display: inline-block; width: 10px; height: 10px; background-color: #f0f0f0; border: 1px solid #ccc;"></span> Ivory<sup>6</sup></div> <div><span style="display: inline-block; width: 10px; height: 10px; background-color: #fff; border: 1px solid #ccc;"></span> White</div> <div><span style="display: inline-block; width: 10px; height: 10px; background-color: #000; border: 1px solid #ccc;"></span> Black</div> <div><span style="display: inline-block; width: 10px; height: 10px; background-color: #444; border: 1px solid #ccc;"></span> Dark Grey</div> <div><span style="display: inline-block; width: 10px; height: 10px; background-color: #f00; border: 1px solid #ccc;"></span> Red</div> <div><span style="display: inline-block; width: 10px; height: 10px; background-color: #00a0e3; border: 1px solid #ccc;"></span> Blue</div> <div><span style="display: inline-block; width: 10px; height: 10px; background-color: #556b2f; border: 1px solid #ccc;"></span> Olive Green</div> <div><span style="display: inline-block; width: 10px; height: 10px; background-color: #ff8c00; border: 1px solid #ccc;"></span> Nectarine</div> <div><span style="display: inline-block; width: 10px; height: 10px; background-color: #ffff00; border: 1px solid #ccc;"></span> Fluorescent Yellow</div> </div>

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, color etc. Actual values will vary with build conditions. Product specifications are subject to change without notice.

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<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. <sup>5</sup>0.007 inch (0.178 mm) layer thickness available on Dimension Elite only. <sup>6</sup>Ivory is the only color option for uPrint.

For more information about Dimension 3D Printers, call **888.480.3548** or visit [www.dimensionprinting.com](http://www.dimensionprinting.com)

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