



ABS is a strong, durable production-grade thermoplastic used across many industries. ABS is an ideal material for conceptual prototyping through design verification through direct digital manufacturing. The marriage of ABS with FDM technology gives you the ability to create Real Parts™ direct from digital files, in a variety of standard and custom colors. Refer to the FDM System Material Availability spec sheet for system availability and color options.

Mechanical Properties <sup>1</sup>	Test Method	Imperial	Metric
Tensile Strength, Type 1, 0.125	ASTM D638	3,200 psi	22 MPa
Tensile Modulus, Type 1, 0.125	ASTM D638	236,000 psi	1,627 MPa
Tensile Elongation, Type 1, 0.125	ASTM D638	6 %	6 %
Flexural Strength	ASTM D790	6,000 psi	41 MPa
Flexural Modulus	ASTM D790	266,000 psi	1,834 MPa
IZOD Impact, notched	ASTM D256	2 ft-lb/in	106.78 J/a
IZOD Impact, un-notched	ASTM D256	4 ft-lb/in	213.56 J/a

Thermal Properties	Test Method	Imperial	Metric
Heat Deflection Temperature @ 66 psi	ASTM D648	195° F	90° C
Heat Deflection Temperature @ 264 psi	ASTM D648	169° F	76° C
Glass Transition Temperature (T <sub>g</sub> )	DMA (SSYS)	219° F	104° C
Coefficient of Thermal Expansion	ASTM D696	5.60E-05 in/in/F	-----
Melt Point	-----	Not Applicable <sup>2</sup>	Not Applicable <sup>2</sup>

Other	Test Method	Value
Specific Gravity	ASTM D792	1.05
Rockwell Hardness	ASTM D785	R105
Flame Classification	UL 94	HB
Dielectric Strength kV/mm	IEC 60112	32
Dielectric Constant @60Mhz	IEC 60250	2.4

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).

<sup>1</sup> Build orientation is on side edge. <sup>2</sup> Do to amorphous nature, material does not display a melting point. <sup>3</sup> When configured with ABS

For more information about Stratasys systems and materials, contact your representative at +1 888.480.3548 or visit [www.stratasys.com](http://www.stratasys.com)

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