



PC-ABS (polycarbonate-ABS) is one of the most widely used industrial thermoplastics. PC-ABS offers the most desirable properties of both materials - the superior mechanical properties and heat resistance of PC and the excellent features of ABS. PC-ABS blends are commonly used in automotive, electronics and telecommunications applications. Additionally, a PC-ABS part manufactured on a FDM mc™ series system is 5-60 percent stronger than a part made on previous FDM systems. When combined with a Stratasys FDM system, PC-ABS gives you Real Parts™ for conceptual prototyping through direct digital manufacturing.

Mechanical Properties <sup>1</sup>	Test Method	Imperial	Metric
Tensile Strength (Type 1, 2"/min)	ASTM D638	5,900 psi	41 MPa
Tensile Modulus	ASTM D638	278,000 psi	1,917 MPa
Tensile Elongation	ASTM D638	6%	6%
Flexural Strength (Method 1, 0.05"/min)	ASTM D790	9,800 psi	68 MPa
Flexural Modulus	ASTM D790	280,000 psi	1,931 MPa
Flexural Elongation	ASTM D790	70%	70%
IZOD Impact, notched (Method A, 23°C)	ASTM D256	3.7 ft-lb/in	196 J/m
IZOD Impact, un-notched (Method A, 23°C)	ASTM D256	9 ft-lb/in	481 J/m

Thermal Properties <sup>3</sup>	Test Method	Imperial	Metric
Heat Deflection Temp (HDT), 66 psi	ASTM D648	230°F	110°C
Heat Deflection Temp (HDT), 264 psi	ASTM D648	205°F	96°C
Vicat Softening	ASTM D1525	234°F	112°C
Coefficient of Thermal Expansion	-----	4.10E-5 in/in F	-----
Glass Transition Temp (Tg)	DMA (SSYS)	257°F	125°C
Melt Point	-----	Not Applicable <sup>2</sup>	Not Applicable <sup>2</sup>

Other <sup>3</sup>	Test Method	Value
Specific Gravity	ASTM D792	1.20
Density	ASTM D792	0.0397 lb/in <sup>3</sup>
UL 94 Flame Class	UL94	HB 0.85mm
Rockwell Hardness	ASTM D785	R110
Dielectric S (kV/mm)	IEC 60112	35.0
Dielectric C (@100 Hz)	IEC 60250	3.1
Dielectric C (@1 Mhz)	IEC 60250	3.0

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 FDM 400mc @ 0.10" (0.254 mm) slice. Product specifications are subject to change without notice.

<sup>1</sup> Build orientation is on side long edge. <sup>2</sup> Due to amorphous nature, material does not display a melting point. <sup>3</sup> Literature value unless otherwise noted.

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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