ABS

A true industrial thermoplastic, ABS is widely used throughout industry. When combined with the Fused Deposition Modeling (FDM) systems by Stratasys, this material is ideal for the rapid production of prototypes, tooling and the direct (tool-less) manufacturing of production parts.

Mechanical Properties[1]	Test Method	Imperial	Metric
Tensile Strength, Type 1, 0.125	ASTM D638	3,2000 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, un-notched	ASTM D256	4 ft-lb/in	
IZOD Impact, notched	ASTM D256	2 ft-lb/in	

Thermal properties	Test Method	Imperial	Metric
Heat Deflection (HDT)	ASTM D648	205° F	96° C
Glass Transition (Tg)	DMA (SSYS)	219° F	104° C
Coefficient of Thermal Expansion		5.60E-05 in/in/F	
Melt Point		Not Applicable[2]	Not Applicable[2]

Other	Test Method	Imperial
Specific Gravity	ASTM D792	1.05
Vertical Buring Test	UL 94	HB
Rockwell Hardness	ASTM D785	R105
Dielectric S (kV/mm)	IEC 60112	32
Dielectric C (@60Mhz)	IEC 60250	2.4

APPEARANCE

- White available on all FDM systems
- Colors available on the FDM Maxum:
  - Black, Blue, Green, Grey (light), Grey (steel), Red and Yellow
  - Custom color program available
- Colors available on FDM Prodigy Plus:
  - Black, Blue, Green, Red and Yellow
  - Custom color program available

SYSTEM AVAILABILITY

- FDM Maxum
- FDM Titan **TI**
- FDM Vantage ***SE***
- FDM Vantage ***S***
- FDM Vantage ***i*** *(when configured with ABS)*
- FDM Prodigy Plus

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.

[1] Build orientation is on side edge. [2] Do to amorphous nature, material does not display a melting point.

For more information about Stratasys systems and materials, contact your representative +1 888.480.3548 or visit **www.stratasys.com**

STRATASYS®