

**ABS
FDM Material Properties**

A true industrial thermoplastic, ABS is widely used throughout industry. When combined with Dimension and the Fused Deposition Modeling process from Stratasys, this material is ideal for 3D printing of models in the engineering office.

MECHANICAL PROPERTIES¹

| | 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, un-notched | ASTM D256 | 4 ft-lb/in | |
| IZOD Impact, notched | ASTM D256 | 2 ft-lb/in | |

THERMAL PROPERTIES

| Heat Deflection (HDT) | ASTM D648 | 205 °F | 96 °C |
|-----------------------|------------|-----------------------------|-----------------------------|
| Glass Transition (Tg) | DMA (SSYS) | 219 °F | 104 °C |
| Melt Point | | Not Applicable ² | Not Applicable ² |

OTHER

| | |
|----------------------------------|------------------|
| Specific Gravity | 1.05 |
| Vertical Burning Test | HB, UL94 |
| Coefficient of Thermal Expansion | 5.60E-05 in/in/F |
| Rockwell Hardness | R105 |
| Dielectric S (kV/mm) | 32 |
| Dielectric C (60Hz) | 2.4 |

APPEARANCE

Standard colors include white, blue, green, yellow, black, red, and steel gray

Custom colors available

Stratasys, Inc.
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SYSTEM AVAILABILITY

Dimension
Dimension BST
Dimension SST

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.

¹ Build orientation is on side edge

² Due to amorphous nature, material does not display a melting point