

ABS-M30 (FDM)

a Stratasys Material

STRONG, AFFORDABLE PROTOTYPING

Ideal for concept models and moderate requirement parts including functional prototypes, jigs, fixtures, manufacturing tools and production parts.



Mechanical Properties ¹	Test Method	Result
Tensile Strength (Type 1, 0.125", 0.2"/min)	ASTM D638	31 MPa • 4,650 psi
Tensile Modulus (Type 1, 0.125", 0.2"/min)	ASTM D638	2,230 MPa • 320,000 psi
Tensile Elongation (Type 1, 0.125", 0.2"/min)	ASTM D638	7%
Flexural Strength (Method 1, 0.05"/min)	ASTM D790	60 MPa • 8,700 psi
Flexural Modulus (Method 1, 0.05"/min)	ASTM D790	2,060 MPa • 300,000 psi
IZOD Impact, notched (Method A, 23°C)	ASTM D256	128 J/m • 2.4 ft-lb/in
IZOD Impact, un-notched (Method A, 23°C)	ASTM D256	300 J/m • 5.6 ft-lb/in

Thermal Properties ²	Test Method	Result
Heat Deflection (HDT) @ 66 psi, 0.125" unannealed	ASTM D648	96°C • 204°F
Heat Deflection (HDT) @ 264 psi, 0.125" unannealed	ASTM D648	82°C • 180°F
Vicat Softening Temperature (Rate B/50)	ASTM D1525	99°C • 210°F
Glass Transition (Tg)	DSC (SSYS)	108°C • 226°F

3D Printing Ally makes no warranties of the materials for any particular application, nor does it make a warranty of any type, expressed or implied, including but not limited to, the warranties of merchantability for a particular purpose.



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Electrical Properties ³	Test Method	Result
Volume Resistivity	ASTM D257	4.0x10e15 • 3.3x10e16 ohm-cm
Dielectric Constant	ASTM D150-98	2.6 - 2.86
Dissipation Factor	ASTM D150-98	.00480054
Dielectric Strength	ASTM D149-09, Method A	360 V/mil

Other ²	Test Method	Result
Specific Gravity	ASTM D792	1.04
Flame Classification	UL94	HB (0.09", 2.50 mm)
Rockwell Hardness	ASTM D785	109.5

¹ Build orientation is on side long edge.

² Literature values unless otherwise noted.

³ All Electrical Property values were generated from the average of test plaques built with the default part density (solid). Test plaques were 4.0 x 4.0 x 0.1 inches ($102 \times 102 \times 2.5 \text{ mm}$) 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.

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