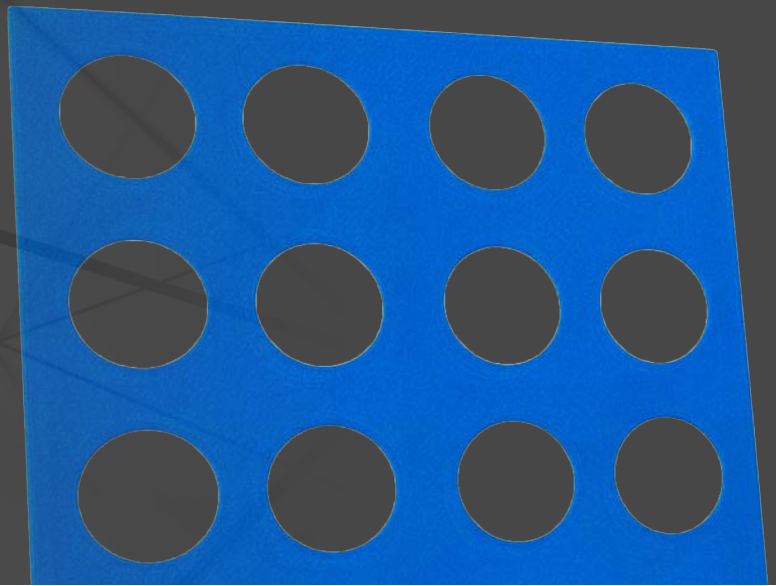




3D COMPOSITES
Transforming ideas into 3-dimensional objects

ABS-M30™

MATERIAL DATA SHEET



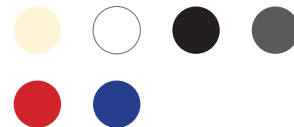
ABS-M30™ is up to 25-30 percent stronger than standard Stratasys ABS and is an ideal material for conceptual modeling, functional prototyping, manufacturing tools, and end-use parts. ABS-M30 has greater tensile, impact, and flexural strength than standard ABS. Layer bonding is significantly stronger than that of standard ABS, for a more durable part. This results in more realistic functional tests and higher quality parts for end use.

Color options:

Natural, White, Black, Gray, Red, Blue

Quick Facts:

- 25-30% stronger than standard ABS
- Great for bonded parts
- Real end use



MECHANICAL PROPERTIES	TEST METHOD	ENGLISH	METRIC
Tensile Strength (Type 1, 0.125", 0.2"/min)	ASTM D638	5,200 psi	36 MPa
Tensile Modulus (Type 1, 0.125", 0.2"/min)	ASTM D638	350,000psi	2,400 MPa
Tensile Elongation (Type 1, 0.125", 0.2"/min)	ASTM D638	4%	4%
Flexural Strength (Method 1, 0.05"/min)	ASTM D790	8,800 psi	61 MPa
Flexural Modulus (Method 1, 0.05"/min)	ASTM D790	336,000 psi	2,300 MPa
IZOD Impact notched (Method A, 23°C)	ASTM D256	2.6 ft-lb/in	139 J/m
IZOD Impact, un-notched (Method A, 23°C)	ASTM D256	5.3 ft-lb/in	283 J/m

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Materials and data based on Stratasys FDM material product testing reports.

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THERMAL PROPERTIES	TEST METHOD	ENGLISH	METRIC
Heat Deflection (HDT) @ 66 psi, 0.125" unannealed	ASTM D648	204° F	96° C
Heat Deflection (HDT) @264 psi, 0.125" unannealed	ASTM D648	180° F	82° C
Vicat Softening Temperature (Rate B/50)	ASTM D1525	210° F	99° C
Glass Transition (Tg)	DSC (SSYS)	226° F	108° C
Coefficient of Thermal Expansion (flow)	ASTM E831	4.9E-05 in/in/° F	8.82 E-05 mm/mm/°C
Coefficient of Thermal Expansion (xflow)	ASTM 831	4.7E-05 in/in/° F	8.46E05mm/mm/°C
Melt Point	-----	Not Applicable	Not Applicable

ELECTRICAL PROPERTIES	TEST METHOD	VALUE RANGE
Volume Resistivity	ASTM D257	4.0x10e14 – 5.0x10e13 ohms
Dielectric Constant	ASTM D150-98	2.9 -2.7
Dissipation Factor	ASTM D150-98	.0052 - .0049
Dielectric Strength	ASTM D149-09, Method A	370 -71 V/mil

OTHER	TEST METHOD	VALUE
Specific Gravity	ASTM D792	1.04
Flame Classification	UL94	HB (0.09", 2.50 mm)
Rockwell Hardness	ASTM D785	109.5
UL File Number	-----	109.5