

ABS-M30

ABS-M30 is up to 25-70 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. When combined with a Fortus® 3D Production System, ABS-M30 gives you real parts that are stronger, smoother, and with better feature detail.

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	350,000 psi	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

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	8.82E-05 mm/mm/°C
Coefficient of Thermal Expansion (xflow)	ASTM E831	4.7E-05 in/in/°F	8.46E-05 mm/mm/°C

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/mm
Dielectric Strength	IEC 60112	28.0 kV/mm

OTHER TEST	METHOD	VALUE
Specific Gravity	ASTM D792	1.04

Flame Classification	UL94	HB (0.06", 1.5 mm)
Rockwell Hardness	ASTM D785	109.5

SYSTEM AVAILABILITY	LAYER THICKNESS CAPABILITY	SUPPORT STRUCTURE	AVAILABLE COLORS
Fortus 900mc	0.013 inch (0.330 mm)	Soluble Supports	Ivory
	0.010 inch (0.254 mm)		White
	0.007 inch (0.178 mm)		Black
			Dark Grey
			Red
			Blue

Actual part properties may vary slightly from those listed above based on processing parameters, operating conditions, and material usage. Forecast3D makes no warranties of 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.

Forecast3D is a world class Rapid Manufacturing facility located in Carlsbad CA specializing in high-quality rapid prototyping, 3D printing (SLA, SLS, FDM, Objet, and DMLS), short-run manufacturing and CNC machining, and is well known for its unique ProCAST RTV & Hybrid Tooling capabilities.