GROW it™
RAPID PROTOTYPING & MANUFACTURING

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[1]	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	2413 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	2317 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
Typical achievable tolerance	-	+/- .005 1st in.; +/- .001 every in. after	+/- .127 1st cm; +/- .025 every cm after

Thermal Properties[3]	Test Method	English	Metric
Heat Deflection (HDT) @ 66 psi, 0.125" unannealed	ASTM D648	204°F	110°C
Heat Deflection (HDT) @ 264 psi, 0.125" unannealed	ASTM D648	180°F	96°C
Vicat Softening Temp. (Rate B/50)	ASTM D1525	210°F	112°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 E381	4.7E -05 in/in/°F	8.46E-05 mm/mm/°C
Glass Transition Temp (Tg)	DMA (SSYS)	226°F	108°C
Melt Point	-	Not Applicable[2]	Not Applicable[2]

Other[3]	Test Method	Value
Specific Gravity	ASTM D792	1.04
Flame Classification	UL94	HB (0.06", 1.5mm)
Rockwell Hardness	ASTM D785	110%
Dielectric Strength	IEC60112	28.0 kV/mm

→ See reverse for color options and system availability.

The information presented are typical values intended for reference and comparison purposes only. They should not be used for design specifi cations 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. Tested parts were built on Fortus 400mc @ 0.010” (0.254 mm) slice. Product specifi cations are subject to change without notice.

[1]Build orientation is on side long edge. [2]Due to amorphous nature, material does not display a melting point. [3]Literature value unless otherwise noted.

ABS-M30

System Availability	Layer Thickness Capacity	Support Structure	Available Colors
Fortus 360mc	0.010 inch (0.254 mm)	Soluble Supports	Ivory
Fortus 900mc	0.007 inch (0.178 mm)		White
	0.005 inch (0.127 mm)		Black
			Dark Grey
			Red
			Blue

At the core:
Advanced FDM Technology

Fused Deposition Modeling (FDM) is the industry's leading additive manufacturing technology. FDM systems use a wide range (the largest choice of options in the industry) of thermoplastics with advanced mechanical properties so your parts can endure high heat, caustic chemicals, sterilization, and high impact applications.

Real Accuracy

Because thermoplastics are environmentally stable, part accuracy (or tolerance) doesn't change with ambient conditions or time. This enables FDM parts to be among the most dimensionally accurate.

Get your benchmark on the future of manufacturing

Low Cost. Accurate. High Strength. The best way to see the advantages of a FDM part is to have your own model built on one of our many FDM systems. Get your parts at www.growit3d.com.

About GROWit

GROWit™ is a privately held additive manufacturing company located in Irvine, California, dedicated to improving design through engineering and rapid prototyping. We strive to be at the cutting edge, bringing both knowledge and resources directly to customers. With our team of engineers, we help guide customers to the process that best suits their specific application, without holding a bias to a specific platform or technology.

Why do we call ourselves GROWit? Due to the layer-by-layer nature of rapid prototyping, a part often looks like it is growing within the machine – just like a plant grows from the ground. Rather than using the terms "building" or "fabricating", the term "growing" is commonly used within the industry; thus the origin of our name, GROWit.

GROWit
20918 Bake Parkway
Suite 106
Lake Forest, CA
92630

(p) 949 305 4004
(f) 949 305 4915
www.growit3d.com
sales@growit3d.com

GROWit™
RAPID PROTOTYPING & MANUFACTURING