

Fortus 450mc

Industrial FDM technology with an open material ecosystem for advanced prototyping, tool production and end-use parts.

Bring the speed, agility and design freedom of advanced additive manufacturing to your business while gaining the latest advances in FDM[®] technology. The Fortus $450mc^{TM}$ 3D printer builds high-requirement functional prototypes, rugged manufacturing tooling and custom production parts in its large $406 \times 355 \times 406$ mm ($16 \times 14 \times 16$ in.) build envelope. Fourteen Stratasys Preferred Materials¹, multiple Stratasys Validated Materials² and soluble support address a wide variety of applications.

OpenAM[™] software lets users alter print parameters to optimize material capabilities and print results. GrabCAD Print[™], GrabCAD Print Pro[™], and Insight[™] software provide an easy CAD-to-print workflow and in-depth print processing control. MTConnect and Stratasys Software Development Kits let you integrate the Fortus 450mc into your connected factory floor. Data security, including U.S. Department of Defense STIG compliance, is provided by Stratasys ProtectAM[™] technology.

System Specifications	
Build Envelope (XYZ)	450mc: 406 x 355 x 406 mm (16 x 14 x 16 in.)
Material Delivery	450mc: Two bays each for material and support canisters. Auto changeover between canisters

Material Options

Stratasys Preferred Mate	_						
Material	Layer Thickness				Support Structure	Available Colors	
	0.330 mm (0.013 in.)	0.254 mm (0.010 in.)	0.178 mm (0.007 in.)	0.127 mm (0.005 in.)			
ABS-ESD7™	0	٠	•	0	Soluble	Black	
ABS-M30™	٠	٠	0	٠	Soluble	IvoryBlackBlue	WhiteRedDark Gray
ABS-M30i™	•	•	•	•	Soluble	Ivory	
Antero™ 800NA	0	٠	0	0	Breakaway	Natural	
Antero 840CN03	0	٠	0	0	Breakaway	Natural	
ASA	٠	٠	٠	٠	Soluble	 Black Dark Gray Light Gray White Ivory 	 Dark Blue Green Yellow Orange Red
FDM Nylon 12™	٠	•	•	0	Soluble	Black	
FDM Nylon 12CF™	0	٠	0	0	Soluble	Black	
PC	٠	•	•	•	Breakaway, Soluble	□ White	
PC-ABS	٠	٠	٠	٠	Soluble	Black	
PC-ISO™	٠	٠	٠	0	Breakaway	 Translucent Natural 	□ White
ULTEM™ 9085 resin	٠	٠	0	0	Breakaway	Tan	Black
ULTEM™ 1010 resin	٠	٠	0	0	Breakaway	Natural	
ST-130	•	0	0	0	Breakaway	Tan	

¹ Stratasys Preferred Materials are developed by Stratasys or a third-party provider, and have been

engineered and tested to provide the optimal combination of material and printer performance.

² Stratasys Validated Materials are developed by Stratasys or a third-party provider, meet Stratasys quality standards, and have received basic reliability testing for use with Stratasys FDM printers.

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Material Options

Stratasys Validated Materials							
Material	Layer Thickness				Support Structure	Available Colors	
	0.330 mm (0.013 in.)	0.254 mm (0.010 in.)	0.178 mm (0.007 in.)	0.127 mm (0.005 in.)			
FDM HIPS	0	٠	0	0	Breakaway	Light Gray	
Kimya PC-FR	0	٠	0	0	Soluble	Light Gray	
ULTEM® 9085 Resin (colored)	0	٠	0	0	Breakaway	RedJanaWhiteDream Gray	White 7362Gunship GrayAircraft Gray
PC (polycarbonate)	0	٠	0	0	Soluble	Red	Black
PC-ABS (polycarbonate/ABS blend)	0	٠	0	0	Soluble	Red	

Other Specifications	
System Size and Weight	129.5 cm x 90.2 cm x 198.4 cm (51 x 35.5 x 78.1 in.) 601 kg (1325 lbs.)
Achievable Accuracy	Parts are produced within an accuracy of \pm .127 mm (\pm .005 in.) or \pm .0015 mm/mm (\pm .0015 in/in), whichever is greater). Z part accuracy includes an additional tolerance of -0.000/+slice height. Note: Accuracy is geometry dependent. Achievable accuracy specification derived from statistical data at 95% dimensional yield.
Network Communication	10/100 base T connection. Ethernet protocol.
Operator Attendance	Limited attendance for job start and stop required.
Power Requirements	208VAC 3 phase, 50/60 Hz, consumes 18 Amps
Regulatory Compliance	CE, cTUVus, RCM, EAC, FCC Part B
Software	All Fortus systems include Insight [™] and Control Center [™] job processing and management software. Compatible with GrabCAD Print [™] and GrabCAD Print Pro [™] for use with job reports, scheduling and remote monitoring. OpenAM software is available through the purchase of an Open Material License.
Operating System	Microsoft Windows 10 (Pro, Enterprise, Education), Microsoft Windows 8.1 and Windows 8 (Pro, Enterprise), Microsoft Windows 7 (Pro, Enterprise, Ultimate), Microsoft Windows Server 2012 R2. Insight software requires a 64-bit operating system.

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ISO 9001:2015 Certified

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