



# FDM Nylon 6

## PRODUCTION-GRADE THERMOPLASTIC FOR FORTUS 3D PRODUCTION SYSTEMS

FDM Nylon 6™ combines strength and toughness superior to other FDM Thermoplastics, for applications that require strong, customized parts and tooling that lasts longer and withstands rigorous functional testing.

Engineered with nylon 6, a popular thermoplastic for manufacturing, this material works with the Fortus 900mc™ to produce durable parts with a clean finish and high break resistance. FDM Nylon 6 is ideal for product manufacturers and development engineers in automotive, aerospace, consumer goods and industrial manufacturing.

CONDITIONED*					
MECHANICAL PROPERTIES <sup>1</sup>	TEST METHOD	ENGLISH		METRIC	
		XZ AXIS	ZX AXIS	XZ AXIS	ZX AXIS
Tensile Strength, Yield (Type 1, 0.125", 0.2"/min)	ASTM D638	7,150 psi	4,200 psi	49.3 MPa	28.9 MPa
Tensile Strength, Ultimate (Type 1, 0.125", 0.2"/min)	ASTM D638	9,800 psi	5,300 psi	67.6 MPa	36.5 MPa
Tensile Modulus (Type 1, 0.125", 0.2"/min)	ASTM D638	323,700 psi	263,500 psi	2,232 MPa	1,817 MPa
Elongation at Break (Type 1, 0.125", 0.2"/min)	ASTM D638	38%	3.2%	38%	3.2%
Elongation at Yield (Type 1, 0.125", 0.2"/min)	ASTM D638	2.3%	1.7%	2.3%	1.7%
Flexural Strength (Method 1, 0.05"/min)	ASTM D790	14,100 psi	11,900 psi	97.2 MPa	82 MPa
Flexural Modulus (Method 1, 0.05"/min)	ASTM D790	318,500 psi	272,500 psi	2,196 MPa	1,879 MPa
Flexural Strain at Break	ASTM D790	No Break	No Break	No Break	No Break
IZOD impact - notched (Method A, 23°C)	ASTM D256	2.0 ft-lb/in	0.8 ft-lb/in	106 J/m	43 J/m
IZOD impact - unnotched (Method A, 23°C)	ASTM D256	53.8 ft-lb/in	3.6 ft-lb/in	2,873 J/m	192 J/m

STRATASYS.COM



THE 3D PRINTING SOLUTIONS COMPANY



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### At the core:

#### Advanced FDM Technology

Fortus 3D Printers are powered by FDM (fused deposition modeling) technology. FDM is the industry's leading additive manufacturing technology, and the only one that uses production-grade thermoplastics, enabling the most durable parts. Fortus® systems use a wide range of thermoplastics with advanced mechanical properties so your parts can endure high heat, caustic chemicals, sterilization and high-impact applications.

#### No special facilities needed

You can install a Fortus 3D Printer just about anywhere. No special venting is required because Fortus systems don't produce noxious fumes, chemicals or waste.

#### No special skills needed

Fortus 3D Printer are easy to operate and maintain compared to other additive fabrication systems because there are no messy powders to handle and contain. They're so simple, an operator can be trained to operate a Fortus system in less than 30 minutes.

#### Get your benchmark on the future of manufacturing

Fine details. Smooth surface finishes. Accuracy. Strength. The best way to see the advantages of a Fortus 3D Printer is to have your own part built on a Fortus system. Get your free part at: [stratasys.com](http://stratasys.com).

THERMAL PROPERTIES <sup>1</sup>	TEST METHOD	ENGLISH	METRIC
Heat Deflection (HDT) @ 264 psi	ASTM D648	199°F	93°C

SYSTEM AVAILABILITY	LAYER THICKNESS CAPABILITY	SUPPORT MATERIAL	COLOR
Fortus 900mc	0.010 inch (0.254 mm) 0.013 inch (0.330 mm)	SR-110	■ Black

<sup>1</sup>Conditioned = 20°C and 50% RH for 40 hours

The information presented are typical values intended for reference and comparison purposes only. They should not be used for design specifications 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 specifications are subject to change without notice.

The performance characteristics of these materials may vary according to application, operating conditions, or end use. Each user is responsible for determining that the Stratasys material is safe, lawful, and technically suitable for the intended application, as well as for identifying the proper disposal (or recycling) method consistent with applicable environmental laws and regulations. Stratasys makes no warranties of any kind, express or implied, including, but not limited to, the warranties of merchantability, fitness for a particular use, or warranty against patent infringement.

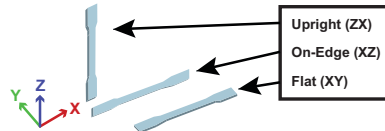
<sup>1</sup>Literature value unless otherwise noted.

Orientation: See Stratasys Testing white paper for more detailed description of build orientations.

XZ = X or "on edge"

XY = Y or "flat"

ZX = or "upright"



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