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ASA

Now you can build consistently high-quality parts, with exceptional UV stability and the best aesthetics of any FDM

ASA is poised to become the most popular all-purpose prototyping material for users of Fortus 360mc™, 380mc™, 400mc™, 450mc™

and 900mc™ 3D Printers, and the Stratasys F123 Series. Matching or exceeding the mechanical properties of ABS, ASA may be your

new favorite general prototyping material. Its UV-resistance makes it especially suited in end-use parts for outdoor commercial and

infrastructure use. And its wide selection of colors and matte finish makes it ideal for attractive prototypes in consumer sporting goods,

tools and automotive components and accessories.

MECHANICAL PROPERTIES

TEST METHOD	STANDARD	ENGLISH		METRIC	
		XZ ORIENTATION	ZX ORIENTATION	XZ ORIENTATION	ZX ORIENTATION
Tensile Strength, Yield (Type 1, 0.125", 0.2"/min)	ASTM D638	4,200 psi	3,850 psi	29 MPa	27 MPa
Tensile Strength, Ultimate (Type 1, 0.125", 0.2"/min)	ASTM D638	4,750 psi	4,300 psi	33 MPa	30 MPa
Tensile Modulus (Type 1, 0.125", 0.2"/min)	ASTM D638	290,000 psi	280,000 psi	2,010 MPa	1,950 MPa
Elongation at Break (Type 1, 0.125", 0.2"/min)	ASTM D638	9%	3%	9%	3%
Elongation at Yield (Type 1, 0.125", 0.2"/min)	ASTM D638	2%	2%	2%	2%
Flexural Strength (Method 1, 0.05"/min)	ASTM D790	8,700 psi	6,900 psi	60 MPa	48 MPa
Flexural Modulus (Method 1, 0.05"/min)	ASTM D790	270,000 psi	240,000 psi	1,870 MPa	1,630 MPa
Flexural Strain at Break (Method 1, 0.05"/min)	ASTM D790	No Break	4%	No Break	4%

THERMAL PROPERTIES ²

TEST METHOD	ENGLISH	METRIC
Heat Deflection (HDT) @ 66 psi	208°F	98°C
Heat Deflection (HDT) @ 264 psi	196°F	91°C
Vicat Softening Temperature (Rate B/50)	217°F	103°C
Glass Transition Temperature (Tg)	226°F	108°C
Coefficient of Thermal Expansion (flow)	4.90E-06 in/in/°F	8.79E-06 mm/mm/°C
Coefficient of Thermal Expansion (xflow)	4.60E-06 in/in/°F	8.28E-06 mm/mm/°C

ELECTRICAL PROPERTIES

TEST METHOD	ORIENTATION	VALUE RANGE
Volume Resistivity	XZ	1.0E14 - 1.0E15 ohm-cm
Dielectric Constant	XZ	2.97 - 3.04
Dissipation Factor	XZ	0.009
Dielectric Strength	XZ	329 V/mil
Dielectric Strength	ZX	414 V/mil



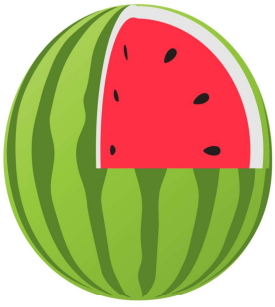


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MECHANICAL PROPERTIES

TEST METHOD	STANDARD	ENGLISH	METRIC
Notched Impact, XZ orientation (Method A, 23°C)	ASTM D256	1.2 ft-lb/in	64 J/m
Unnotched Impact, XZ orientation (Method A, 23°C)	ASTM D256	6 ft-lb/in	321 J/m

OTHER	TEST METHOD	VALUE
Specific Gravity	ASTM D792	1.05
Flame Classification	UL94	HB
Rockwell Hardness	ASTM D785 (Scale R, 73°F)	82
UL File Number	-----	345258

SYSTEM AVAILABILITY	LAYER THICKNESS CAPABILITY	SUPPORT STRUCTURE	AVAILABLE COLORS ²
Fortus 360mc	0.013 inch (0.330 mm)	Soluble Support	■ Black ■ Dark Blue
Fortus 380mc	0.010 inch (0.254 mm)		■ Dark Gray ■ Green
Fortus 400mc	0.007 inch (0.178 mm)		■ Light Gray ■ Yellow
Fortus 450mc	0.005 inch (0.127 mm)		□ White ■ Orange
Fortus 900mc ³			■ Ivory ■ Red
Stratasys F123 Series			