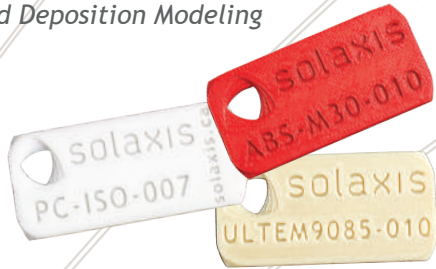


FDM Materials

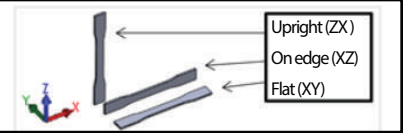
Fused Deposition Modeling



Solaxis offers a variety of production grade thermoplastics to manufacture real parts directly from digital data. Fortus thermoplastics are environmentally stable, so the overall shape and accuracy of the parts don't change with ambient conditions over time.

These thermoplastics produce production grade parts, ideal for end-use parts, functional prototyping, manufacturing tools and conceptual modeling.

XZ = X or "on edge"
 XY = Y or "flat"
 ZX = or "upright"



MATERIAL	COLOURS	TENSILE STRENGTH	FLEXURAL STRENGTH	HEAT DEFLECTION (HTD) at 264 psi	UNIQUE PROPERTIES	ENVELOPE SIZE (inches)	SLICING (inches)
ASA	<ul style="list-style-type: none"> Black Red Pale grey Orange White 	XZ: 4750 psi (33 MPa) ZX: 4 300 psi (30 MPa)	XZ: 8 700 psi (60 MPa) ZX: 6 900 psi (48 MPa)	196 °F (91 °C)	UV-resistant, matte finish, best aesthetics of any FDM material.	36x24x36	0.020 0.013 0.010 0.007 0.005
NYLON-12CF <u>new!</u>	<ul style="list-style-type: none"> Black 	XZ: 10 960 psi (76 MPa) ZX: 4 990 psi (34 MPa)	XZ: 20 660 psi (142 MPa) ZX: 8 430 psi (58 MPa)	289 °F (143 °C)	Strongest thermoplastic (FDM), highest flexural strength, highest stiffness-to-weight ratio.	36x24x36	0.010
NYLON-12	<ul style="list-style-type: none"> Black 	XZ: 6 650 psi (46 MPa) ZX: 5 600 psi (39 MPa)	XZ: 9 700 psi (67 MPa) ZX: 8 800 psi (61 MPa)	180 °F (82 °C) annealed 131 °F (55 °C) unannealed	High fatigue resistance, best Z-axis lamination.	36x24x36	0.013 0.010 0.007
NYLON-6 <u>new!</u>	<ul style="list-style-type: none"> Black 	XZ: 9 800 psi (68 MPa) ZX: 5 300 psi (37 MPa)	XZ: 14 100 psi (97 MPa) ZX: 11 900 psi (82 MPa)	199 °F (93 °C)	High fatigue resistance, high tensile strength (XZ-axis).	36x24x36	0.013 0.010
ULTEM 9085	<ul style="list-style-type: none"> Tan Black 	XZ: 9 950 psi (69 MPa) ZX: 6 100 psi (42 MPa)	XZ: 16 200 psi (112 MPa) ZX: 9 900 psi (68 MPa)	307 °F (153 °C)	FST approved (flame, smoke and toxicity) and UV-resistant.	36x24x36	0.013 0.010
ULTEM 1010	<ul style="list-style-type: none"> Natural 	XZ: 11 700 psi (81 MPa) ZX: 7 000 psi (48 MPa)	XZ: 21 000 psi (144 MPa) ZX: 11 100 psi (77 MPa)	415 °F (213 °C)	High heat and chemical resistance, FST approved.	36x24x36	0.020 0.013 0.010 0.007*
ABS-ESD7	<ul style="list-style-type: none"> Black 	5 200 psi (36 MPa)	8 800 psi (61 MPa)	180 °F (82 °C)	Static dissipative, surface resistance of 10 ⁷ ohms.	36x24x36	0.010 0.007
PC-ABS	<ul style="list-style-type: none"> Black White 	5 900 psi (41 MPa)	9 800 psi (68 MPa)	205 °F (96 °C)	Highest impact resistance.	36x24x36	0.013 0.010 0.007 0.005*
PC	<ul style="list-style-type: none"> White 	XZ: 8 300 psi (57 MPa) ZX: 6 100 psi (42 MPa)	XZ: 13 000 psi (89 MPa) ZX: 9 900 psi (68 MPa)	261 °F (127 °C)	Highest impact strength.	36x24x36	0.013 0.010 0.007 0.005*
PC-ISO	<ul style="list-style-type: none"> White Translucent natural 	8300 psi (57 MPa)	13 100 psi (90 MPa)	260 °F (127 °C)	Translucent material.	36x24x36	0.013 0.010 0.007

* Only available in build size of 16"x14"x16"