

# BSLA Paradigm

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## ABSplus Technical Properties

ABSplus is a true industrial thermoplastic which is 40 percent stronger than standard ABS material. It is an ideal material for conceptual prototyping through design verification as well as for finished parts through direct manufacturing using our FDM systems.

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.

The marriage of ABSplus and FDM technology gives you the ability to create parts directly from digital files that are stronger, smoother, and with more feature detail.

<u>Mechanical Properties</u>	<u>Test Method</u>	<u>English</u>	<u>Metric</u>
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	329,500 psi	2,265 MPa
Tensile Elongation (Type 1, 0.125", 0.2"/min)	ASTM D638	4%	4%
Flexural Strength (Method 1, 0.05"/min)	ASTM D790	7,604 psi	52 MPa
Flexural Modulus (Method 1, 0.05"/min)	ASTM D790	319,737 psi	2,198 MPa
IZOD Impact, notched (Method A, 23°C)	ASTM D256	1.8 ft-lb/in	96 J/m
<b>Thermal Properties</b>			
<u>Thermal Properties</u>	<u>Test Method</u>	<u>English</u>	<u>Metric</u>
Heat Deflection (HDT) @ 66 psi	ASTM D648	204°F	96°C
Heat Deflection (HDT) @ 264 psi	ASTM D648	180°F	82°C
Coefficient of Thermal Expansion	ASTM D696	4.90 E -05 in/in/°F	N/A
Melt Point	N/A	Not Applicable	Not Applicable
<b>Other</b>			
<u>Other</u>	<u>Test Method</u>	<u>Value</u>	
Specific Gravity	ASTM D792	1.04	
<b>Layer Thickness Capability</b>			
<u>Layer Thickness Capability</u>	<u>Support Structure</u>	<u>Default Color</u>	<u>Other Available Colors</u>
0.010 inch (0.254 mm)	Soluble Supports	black	white
0.007 inch (0.178 mm)			gray
			ivory
			yellow
			red
			blue
			olive green