



# STEREOLITHOGRAPHY (SLA) PHOTOPOLYMERS

Stereolithography (also known as SL or SLA) builds parts layer-by-layer using a UV laser to solidify liquid photopolymer resins. It is commonly used to produce concept models, master patterns, large prototypes and investment casting patterns.



	Materials Simulating Plastics		Polypropylene like	Polycarbonate Like	Clear	Investment Casting Patterns	High Temp	Nanocomposite	Medical/Dental
<b>MATERIAL</b>	<b>Accura Xtreme White</b>	<b>Accura Grey</b>	<b>Accura 25</b>	<b>Accura 60</b>	<b>Clearvue</b> Class VI certification Biocompatible	<b>Cast Pro</b>	<b>Accura 48 HTR</b>	<b>Blue Stone</b>	<b>SureHold SH-S1</b>
<b>Unique Properties</b>	Functionality of ABS with fine surface finish	Functionality of ABS with polypropylene	Simulate the properties aesthetics of polypropylene with this accurate and flexible material.	Simulate the properties and appearance of polycarbonate with this clear, tough plastic.	Simulate the properties and appearance of Polycarbonate and ABS with this durable clear plastic.	Production and Prototype investment castings	Strong, Rigid and thermally resistant	Exceptional Stiffness, high rigidity, thermally resistant	Simulate the properties and appearance of Polycarbonate and ABS Biocompatible
<b>Available Colors</b>	☐ White	■ Grey	☐ White	☐ Transparent	☐ Clear	☐ Semi-clear	☐ Semi-clear	■ Blue	■ Black ■ Trans Red ☐ Clear ■ Trans Blue
<b>Tensile Strength</b>	5,510 - 6,380 psi	5,510 - 6,380 psi	5,450 - 5,570 psi	8,410 - 9,860 psi	6,700 - 7,700 psi	7,540 - 7,690 psi	9,280 - 9,720 psi	6,900 - 9,800 psi	5,950 psi
<b>Tensile Elongation</b>	14-22%	14-22%	13-20%	5-13%	3-15%	4.3-8.3%	4-7%	1.4-2.4%	8-12%
<b>Flexural Strength (psi)</b>	10,880-11,460	7,540-10,300	7,960-8,410	12,620-14,650	10,400-12,200	11,890-12,180	15,200-17,100	18,000-22,300	12,800-13,000
<b>IZOD Impact, notched (ft-lb/in)</b>	1.03-1.24	0.66-0.98	19-24 J/m (0.4 ft-lb/in)	0.3-0.5	0.70-1.1	0.80-0.92	0.4-0.5	0.24-0.32	0.70-0.76
<b>Shore Hardness</b>	Scale D (78-80)	Scale D (78-80)	Scale D 80	Scale D 86	Scale D 80	Scale D 85	Scale D 86	Scale D 92	Scale D 80
<b>Heat Deflection (At 0.45 MPa)</b>	ASTM D 648 @ 66 PSI 62 °C (144 °F) @ 264 PSI 54 °C (129 °F)	ASTM D 648 @ 66 PSI 62 °C (144 °F) @ 264 PSI 54 °C (129 °F)	ASTM D 648 @ 66 PSI 58 - 63 °C (136 - 145 °F) @ 264 PSI 51 - 55 °C (124 - 131 °F)	ASTM D 648 @ 66 PSI 53 - 55 °C (127 - 131 °F) @ 264 PSI 48 - 50 °C (118 - 122 °F)	ASTM D 648 @ 66 PSI 51 °C (124 °F) @ 264 PSI 50 °C (122 °F)	ASTM D 648 @ 66 PSI 51 °C (124 °F) @ 264 PSI 50 °C (122 °F)	ASTM D 648 UV PostCure @ 66 PSI 65 °C (149 °F) @ 264 PSI 57 °C (135 °F) UV + Thermal Postcure (120°C) @ 66 PSI 130 °C (266 °F)	ASTM D 648 UV Postcure only @ 66 PSI 65 °C (149 °F) @ 264 PSI 57 °C (135 °F) UV + Thermal Postcure (120°C) @ 66 PSI 267 - 284 °C (513 - 543 °F)	ASTM D 648 @ 66 PSI 53 - 55 °C (127 - 131 °F) @ 264 PSI 48 - 50 °C (118 - 122 °F)

