



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
MATERIAL	Accura Xtreme White	Accura Grey	Accura 25	Accura 60	Clearvue Class VI certification Biocompatible	Cast Pro	Accura 48 HTR	Blue Stone	Dreve FotoTec® SLA
Unique Properties	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
Available Colors	<input type="checkbox"/> White	<input checked="" type="checkbox"/> Grey	<input type="checkbox"/> White	<input type="checkbox"/> Transparent	<input type="checkbox"/> Clear	<input type="checkbox"/> Semi-clear	<input type="checkbox"/> Semi-clear	<input checked="" type="checkbox"/> Blue	<input type="checkbox"/> Beige <input checked="" type="checkbox"/> Trans Red <input type="checkbox"/> Clear <input checked="" type="checkbox"/> Trans Blue
Tensile Strength	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	NA
Tensile Elongation	14-22%	14-22%	13-20%	5-13%	3-15%	4.3-8.3%	4-7%	1.4-2.4%	14-20%
Flexural Strength (psi)	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	15,954-18,854
IZOD Impact, notched (ft-lb/in)	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	—
Shore Hardness	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 (80-84)
Heat Deflection (At 0.45 MPa)	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)	—

