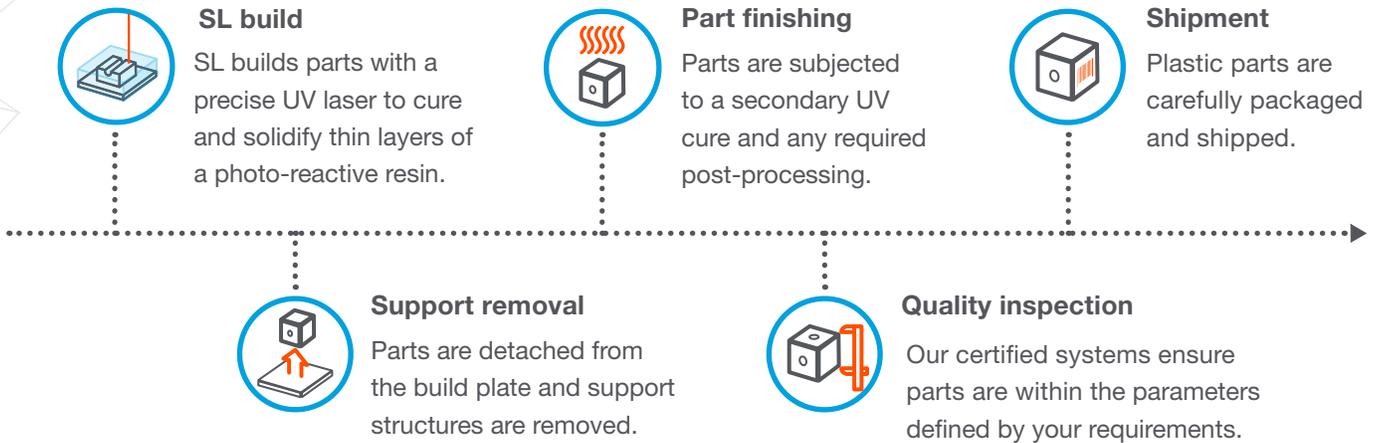


Stereolithography 3D Printing

Stereolithography (SL, SLA®) is the original 3D printing process still widely used today for its accuracy and speed. The design freedom of SL makes iteration and validation easier than ever and allows you to get to market faster.

SL MANUFACTURING PROCESS



CHOOSING THE RIGHT PLASTIC

Our wide range of Stereolithography photopolymers serve our customer's requirements, from clear, strong plastics to special formulas for investment casting patterns, we can help you find the right solution to fulfill your project requirements. SL materials mimic

properties of ABS, polycarbonate and polypropylene in layers as low as 0.002".

- + High Impact resistance
- + Extraordinary clarity and transparency
- + Water resistance

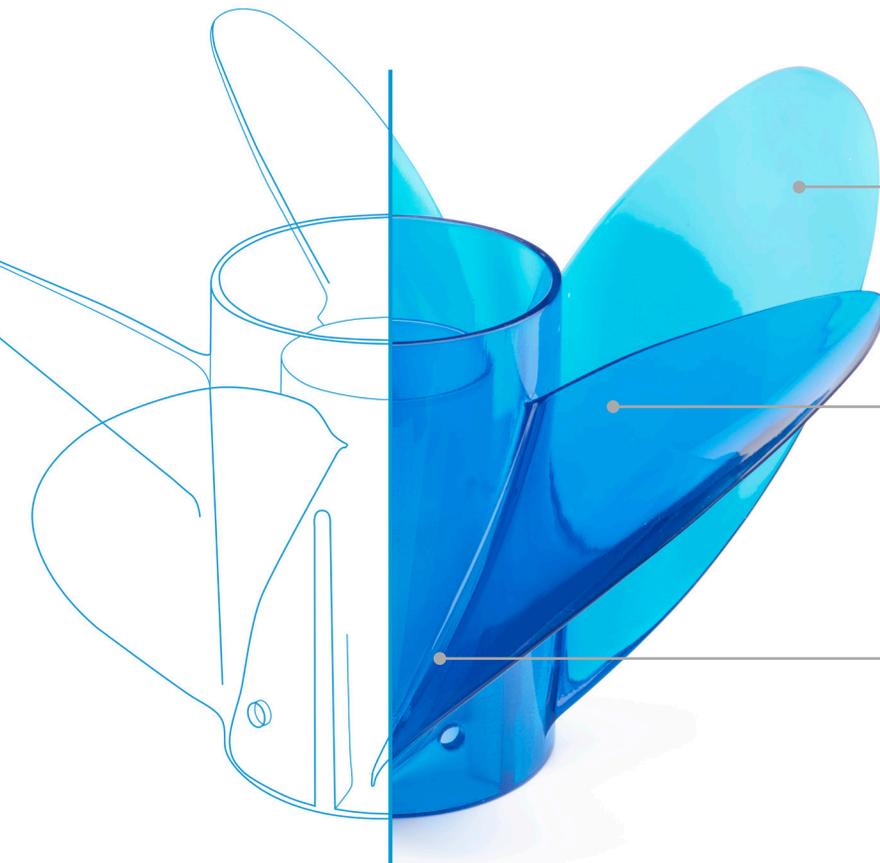
SL materials	Applications	Water absorption	Elongation @ break	Tensile strength	Izod impact strength (notched)
Somos® ProtoGen 18420	Automotive parts, consumer products, housings	0.68%	12%	6,200 psi (43 MPa)	0.39 ft-lb/in (21 J/m)
Somos® WaterClear Ultra 10122	Automotive lenses, bottles, lenses	1.10%	7.5%	8,100 psi (56 MPa)	0.47 ft-lb/in (25 J/m)
Somos® WaterShed XC 11122	Consumer products, lenses, fluid flow analysis	0.35%	15.5%	7,300 psi (50.4 MPa)	0.47 ft-lb/in (25 J/m)
Somos® NeXt	Tough prototypes, snap-fit designs, jigs and fixtures	0.40%	9%	4,800 psi (32.8 MPa)	0.94 ft-lb/in (50 J/m)
SC 1000P	Investment casting patterns, large and lightweight models	0.36%	6.4%	6,100 psi (42 MPa)	0.41 ft-lb/in (22 J/m)

Design tips

Stereolithography can create parts with high dimensional accuracy as well as intricate designs and smooth surfaces. Our finishing experts take your 3D printed prototype and transform it into a replica of your finished product.

- + Affordable concept models
- + Prototypes for validation or testing
- + Presentation models
- + Masters and patterns for tool and mold making

SL Design Specifications	SDSL	HDSL	μHDSL
Max part size (unsegmented)*	25" x 29" x 21"	25" x 29" x 21"	5" x 5" x 9.5"
Layer thickness	0.004"	0.004"	0.002"
Recommended min. feature size	0.025"	0.010"	0.005"
Standard tolerances	±0.020" or ±0.001"/", whichever is greater	±0.010" or ±0.001"/", whichever is greater	±0.005" or ±0.001"/", whichever is greater
Minimum wall thickness	0.06"	0.06"	0.06"



SL BENEFITS

VIRTUALLY LIMITLESS SIZE

Stratasys Direct can seamlessly bond individual sections into extremely large, industrial sized patterns.

COSMETIC FINISHING

SL is a popular choice for parts that need to be finished or transformed to look like finished products. Any surface look is achievable with our expert finishers.

CASTING PATTERNS

SL is uniquely suited to manufacture investment casting patterns utilizing a sparse infill and honeycomb pattern.



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