



## Somos® Stereolithography Materials Selection Guide Properties

Benefits/Type	Appearance	Viscosity (cps @ 30°C)	Photospeed (E <sub>10</sub> mJ/cm²)	Tensile Modulus (MPa) ASTM D638	Tensile Strength (MPa) ASTM D638	Elongation ASTM D638	Izod Impact Notched (J/m) ASTM D256	Heat Deflection Temperature @ 0,46 Mpa (°C) ASTM D648	Heat Deflection Temperature @ 1,81 Mpa (°C) ASTM D648	
<b>PP-LIKE AND FLEXIBLE</b>										
Somos® 9120	Multi-Purpose, Easy-To-Use	Translucent	450	65	1.350	31	20% @ Yield	51	49°	N/A
Somos® 9420	Multi-Purpose, Robust	White	475	96	700	19	28% @ Yield	46	49°	37°
<b>ABS-LIKE</b>										
Somos® GP Plus 14122	All-Purpose, Water Resistant	White	340	64	2.510	47	7,5% @ Break	26	46°	41°
Somos® ProtoGen 18120*	All-Purpose, Heat Resistant	Translucent	300	57	2.950	69	7,5% @ Break	19	96°	49°
Somos® ProtoGen 18420*	All-Purpose, Heat Resistant	White	350	69	2.920	67	7,5% @ Break	17	96°	47°
Somos® ProtoGen 18920*	All-Purpose, Heat Resistant	Grey	350	76	2.730	69	6,5% @ Break	22	97°	N/A
<b>TOUGH AND STRONG</b>										
Somos® EvoLve 128	Highly Durable, Fast Processing	White	380	95	2.960	57	11% @ Break	39	52°	50°
Somos® NeXt	Highly Durable, Water Resistant	White	1.000	67	2.430	42	9% @ Break	50	56°	50°
Somos® NeXt LV Grey	Highly Durable, High Strength	Opaque Grey	480	100	3.130	63	6% @ Break	33	55°	53°
<b>HIGH-TEMP AND COMPOSITE</b>										
Somos® ProtoTherm 12120*	Heat Resistant, ABS-Like	Transparent Red	550	63	3.250	77	4,5% @ Break	17	126°	N/A
Somos® PerFORM*	Rigid, High Strength, Excellent Heat Resistance	Off-White	1.000	80	9.800	80	1,2% @ Break	20	268°	119°
<b>INVESTMENT CASTING</b>										
Somos® Element	Very Clean Burnout, Dimensionally Stable	Clear	125	68	3.170	53	2,3% @ Break	22	58°	53°
Somos® WaterShed XC 11122	Dimensionally Stable	Clear	260	54	2.770	50	15,5% @ Break	25	50°	49°
<b>CLEAR, TRANSPARENT, PC-LIKE</b>										
Somos® WaterClear Ultra 10122	High Clarity, Colorless, Fast Cure	Clear, Colorless	165	47	2.880	56	7,5% @ Break	25	47°	47°
Somos® WaterShed XC 11122	Good Clarity, Excellent Water and Chemical Resistance	Clear, Near Colorless	260	54	2.770	50	15,5% @ Break	25	50°	49°

**Notes:**

- \* Values for materials that have been thermally post-cured;
- All listed products will function on any 355 nm SL system.
- Values are indicative, and final results depend on machine and processing parameters



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## Applications

	MATERIAL PROPERTIES/CHARACTERISTICS					KEY APPLICATION AREAS						
	Accuracy	High Temp	Moisture Resistance	Optical Clarity	Durability	Investment Casting	RTV/Master Patterns	Snap Fit Assemblies	General Purpose Models	Automotive	Wind Tunnel Testing	Rapid Tooling
<b>PP-LIKE AND FLEXIBLE</b>												
Somos® 9120	••		•	•	•••			•••	••	•••		
Somos® 9420	•		•		•••			•••	•	••		
<b>ABS-LIKE</b>												
Somos® GP Plus 14122			•••		••		••	••	•••	•••		•
Somos® ProtoGen 18120	•••	••	••	•	••		•••	••	•••	••		•
Somos® ProtoGen 18420	•••	••	••		••		•••	••	•••	••		•
Somos® ProtoGen 18920	•••	••	••		••		•••	••	•••	••		•
<b>TOUGH AND STRONG</b>												
Somos® EvoLve 128	•••		•••		••		•••	•••	•••	•••		••
Somos® NeXt	•		•••		•••		•••	•••	•••	•••		••
Somos® NeXt LV Grey	••		•••		••		•••	•••	••	••		••
<b>HIGH-TEMP AND COMPOSITE</b>												
Somos® ProtoTherm 12120	•••	••	•••	•	•		•		•	••	••	
Somos® PerFORM	•••	•••	•••		•		••		•	••	•••	•••
<b>INVESTMENT CASTING</b>												
Somos® Element	•••		•••	••		•••						
Somos® WaterShed XC 11122	••		•••	••	••	•••	••	•	•••	•••		•
<b>CLEAR, TRANSPARENT, PC-LIKE</b>												
Somos® WaterClear Ultra 10122	•••		••	•••	•	••	•	•	•••	•••		
Somos® WaterShed XC 11122	••		•••	••	••	•••	••	•	•••	•••		•

BEST: ● ● ●    BETTER: ● ●    GOOD: ●

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