

Somos® Stereolithography Materials Selector Guide: Property Summary



Material	Benefits/Type	Appearance	Viscosity cps @ 30°C	Photospeed E ₁₀ mJ/cm ²	Tensile Modulus MPa	Tensile Strength MPa	Elongation at Break %	Impact Notched Izod J/cm	HDT @0.46MPa, °C, UV (+TPC)*
Somos® 8110/8120	Flexible, PE-like	Translucent	600/600	40/35	317/690	26.0/26.0	27.0/27.0	0.87/0.59	54/54
Somos® 9110/9120	All-Purpose, PP-like	Translucent	230/450	55/65	1,590/1,350	31.0/31.0	18.0/21.0	0.55/0.51	50/57
Somos® 9420	Robust, PP-like	White	475	95	700	18.5	28.0	0.46	49
Somos® ProtoTherm 12110/12120	High Temp Tolerant, ABS-like	Clear, Red	410/550	75/63	3,430/3,520	57.6/70.2	5.0/4.0	0.12/0.12	53 (155)/56 (126)
Somos® 14120	All-Purpose, ABS-like	White	240	64	2,460	45.7	7.9	0.24	53
Somos® NanoForm 15120	Accurate ProtoComposite	Gray	570	112	5,000	48.0	2.1	0.15	66 (269)
Somos® ProtoGen 18120	All-Purpose, Tunable, ABS-like	Translucent	300	57	2,680	53.3	8.0	0.20	57 (95)
Somos® ProtoGen 18420	All-Purpose, Tunable, ABS-like	White	350	67	2,250	43.0	12.0	0.21	55 (95)
Somos® ProtoGen 18920	All-Purpose, Tunable ABS-like	Gray	350	76	2,210	47.2	16.0	0.23	59 (97)
Somos® ProtoCast 19122	Low ash, Antimony-free for Investment Casting	Clear, Peach	100	85	2,100	44.9	6.1	0.23	59
Somos® DMX 100	Tough & Durable, ABS-like	Off-White	1,500	92	2,410	30.9	20.0	0.73	44
Somos® WaterShed XC 11112/11122	Clear, Water-Resistant, ABS- like	Clear, Near Colorless	150/260	72/54	2,640/2,765	48.3/50.4	25.0/16.0	0.19/0.3	50/50
Somos® WaterClear Ultra 10122	Optically Clear, Colorless	Clear, Colorless	165	46	2,880	55.5	8.0	0.25	47 (60)
Somos® NeXt	Durable, Water Resistant, ABS-like	White	1,000	67	2,500	44.0	10.0	0.52	57
Somos® NeXt LV Grey	Low Viscosity, Water Resistant, High Temp Tolerant	Opaque Grey	480	101	3,125	63.0	5.9	0.33	55
Somos® BioClear**	Clear, Water-Resistant, ABS- like, Medical grade**	Clear, Colorless	260	54	2,765	50.4	16.0	0.3	50

* TPC: Thermal Postcure

HDT: Heat Deflection Temperature

** Somos® BioClear is designed for medical applications that are non-implant and have limited contact with the body.

Somos® Stereolithography Materials by DSM

www.dsmsomos.com

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Somos® Stereolithography Materials Selector Guide: Applications



Application		HeCd Laser 325nm	All Systems with Solid State Lasers 355nm
Functional Parts Thermoplastic-like modulus, durable and suitable for snap-fits	PE-like	Somos® 8110	Somos® 8120
	PP-like	Somos® 9110	Somos® 9120, Somos® 9420
	ABS-like	Somos® WaterShed XC 11112*	Somos® WaterShed XC 11122*, Somos® 14120, Somos® DMX 100, Somos® NeXt, Somos® ProtoGen 18120/18420*/18920, Somos® NeXt LV Grey
	High Temperature	Somos® ProtoTherm 12110*	Somos® ProtoGen 18120/18420*/18920, Somos® ProtoTherm 12120, Somos® NanoForm 15120
Master Patterns Highly accurate and durable		Somos® WaterShed XC 11112* Somos® ProtoTherm 12110*	Somos® WaterShed XC 11122*, Somos® WaterClear Ultra 10122 Somos® 14120*, Somos® ProtoGen 18120/18420*/18920, Somos® ProtoTherm 12120, Somos® NanoForm 15120, Somos® NeXt, Somos® NeXt LV Grey
Clear Parts Automotive lens, light pipes		Somos® WaterShed XC 11112*	Somos® WaterClear Ultra 10122, Somos® WaterShed XC 11122*
Investment Casting Pattern Highly accurate, low ash, antimony-free		Somos® WaterShed XC 11112*	Somos® WaterShed XC 11122*, Somos® ProtoCast 19122
Wind Tunnel Models Very rigid, strong and accurate Aerospace, automotive		Somos® ProtoTherm 12110*	Somos® WaterShed XC 11122*, Somos® ProtoTherm 12120, Somos® NanoForm 15120
Medical High resolution, high accuracy, dimensional stability		Somos® ProtoTherm 12110*, Somos® WaterShed 11112*	Somos® NanoForm 15120, Somos® ProtoGen 18120/18420*/18920 Somos® ProtoTherm 12120, Somos® WaterShed XC 11122*, Somos® BioClear
Injection Molds Rapid tooling			Somos® NanoForm 15120
MC² Metal-clad composite, plating			Somos® ProtoTherm 12120, Somos® NanoForm 15120, Somos® ProtoGen 18120/18420/18920

*Note: This material is ISO 10993-5 Cytotoxicity, ISO 10993-10 Sensitization, ISO 10993-10 Irritation certified, and USP Class VI approved.

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