stratasys

MATERIAL DATA SHEET
SLA

Neo® 3D Printer Featured Materials Overview

Material Name	Description, Key Benefits	Applications	Category	Color	PP Method	Tensile Strength	Elongation	Flex Modulus	Notched Izod	HDT @ 0.46 MPa	Water Abs	Ease of Use	
						MPa	%	MPa	J/m	°C	%	Print	Vat
Somos® WaterShed® XC 11122	• Good clarity • Versatile • Good all around resin • Dimensionally stable • Fast and easy processing	• Functional prototypes • Detailed parts with good clarity • Fluid flow analysis, lenses, duct work, manufacturing aids • Jigs and fixtures • Investment casting	●	Clear	UV	50	15.5	2,205	25	50	0.35	★★★	★★★
Somos® WaterShed® XC+	• Great clarity • Versatile use • All around resin • Dimensionally stable • Low differential shrinkage • Fast and easy post processing	• Functional prototypes • Detailed parts with good clarity • Fluid flow analysis, lenses, duct work, manufacturing aids. • Investment casting	●	Clear	UV	27 ± 5	12 ± 3	1,950 ± 56	25 ± 5	50 ± 1	0.28 +/- 0.02	★★★	★★★
Somos® WaterShed® Black	• Weatherable • True black color • Versatile • Dimensionally stable • Easy to process	• Functional end-use parts • Functional prototyping • Manufacturing aids • Jigs and fixtures	●	Black	UV	50	15.5	2,205	25	50	0.35	★★★	★★★
Somos® 9120™	• Memory retention • Fatigue resistance • Good for snap fits • Chemical resistance • Easy to print and use	• Snap fits • Housings • Auto components • Jigs and fixtures	●	Transluscent	UV	31	20	1,380	51	60	-	★★★	★★★
Somos® Taurus™	• Tough • Temperature performance to 90°C • Isotropic • Thermoplastic like performance • Excellent surface	• End use parts • Functional prototypes • Jigs and fixtures	●	Charcoal	UV UV+TPC	47 49	24 17	2,054 1,724	47.5 35.8	62 91	0.7	★★	★★
Somos® EvoLVe™ 128	• High strength and toughness • Fast and accurate printing • Great surface finish	• Functional testing • Jigs, fixtures, manufacturing aids • Snap fits • Jigs and fixtures	●	White	UV	56.8	11	2,654	38.9	52	0.4	★★	★★★
Somos® NeXt™	• Very tough • Tough in high strain rate • Stiff and strong • Dimensionally stable	• Functional testing including for end uses replicating plastics performance • Jigs and manufacturing aids • Sporting goods • Packaging • Snap fits • Jigs and fixtures	●	White	UV	42	9	2,470	50	56	0.4	★★	★★

Categories: ● Clear/Transparent ● ABS-Like ● PP-like/Flexible ● Tough/Strong ● High Temperature/Stiff ● Application Focused

Ease of Use:
Print ★★★ User friendly; suitable for new users ★★ Additional processing guidelines and knowledge required ★ Requires experience
Vat ★★★ Standard vat maintenance practices ★★ Routine mixing required ★ Routine mixing and additional vat maintenance practices required

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Somos® PerFORM™	• Very high heat resistance • High strength and rigidity • Excellent detail resolution	• Wind tunnel parts • Tooling • High temperature functional prototypes	●	White	UV UV+TPC	68 80	1.1 1.2	10,000 9,030	17 20	132 268	0.1 0.1	★★	★
Somos® PerFORM Reflect™	• Very high heat resistance • High strength and rigidity • Excellent detail resolution • Ready-to-use for PIV testing	• PIV Wind Tunnel Testing • Tooling • High temperature functional prototypes	●	Orange	UV UV+TPC	63.3 72.4	0.79 0.96	8,273 7,722	16.9 20	94 276	0.19 0.14	★★	★
Somos® BioClear™	• Biocompatible for general medical applications • Meets ISO 10993-5/10 (cytotoxicity, sensitization, irritation) • Accurate • Great surface quality • Solvent and moisture resistant	• Anatomical models • Surgical guides • Non-implantable medical devices	●	Clear	UV	50.4	15.5	2,205	25	50	0.35	★★★	★★★
Somos® DMX SL™-100	• Withstands autoclave process temperatures • Very tough • Good for extreme detail • Mandrels for hollow composite parts	• Composites manufacturing mandrel	●	Off White	UV	45	20	2,290	65	44	0.83	★	★★
Somos® WaterShed® AF	• Accurate for complex investment casting patterns • Low ash • Dimensionally stable • Excellent surface finish • Antimony Free	• Investment casting patterns	●	Clear	UV	46	10	2,030	34	50	0.31	★★★	★★★
ASTM Test Method						D638	D638	D790	D256	D648	D570-98		

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Neo® 3D Printer Validated Material List

Materials with general use parameter sets developed by Stratasys

The Neo 3D printer's open materials system means you have complete flexibility. Run any commercially available 355 nm resin, allowing you to tailor each print to your exact needs without being locked into proprietary options

	Neo450s 3D Printer				Neo800 3D Printer				Neo800+ 3D Printer			
	HD / SD				HD / SD				HD / SD			
Layer Thickness	50µm	100µm	150µm	200µm	50µm	100µm	150µm	200µm	50µm	100µm	150µm	200µm
Somos® 9120™	●	●	○	○	●	●	○	○				
Somos® BioClear™*	●	●	○	○	●	●	○	○				
Somos® DMX SL™-100**	○	●	○	○	○	●	○	○				
Somos® EvoLVe™ 128	●	●	☒	×	○	●	☒	×				
Somos® NeXt™	●	●	●	●	●	●	●	●				
Somos® PerFORM™	●	●	○	○	○	●	○	○	○	●	●	○
Somos® PerFORM Reflect™	○	○	○	○	○	●	○	○	○	●	●	○
Somos® Taurus™	●	●	☒	×	○	●	☒	×				
Somos® WaterClear® Ultra 10122	○	○	○	○	○	○	○	○				
Somos® WaterShed® Black	●	●	×	×	●	●	×	×	●	●	×	×
Somos® WaterShed® XC 11122	●	●	○	○	●	●	○	○				
Somos® WaterShed® XC+									●	●	☒	☒
Somos® WaterShed® AF†	○	○	○	○	●	●	●	○				

- ● Validated
- ○ Start parameters exist
- ◑ Controlled Release
- ☒ Not Recommended
- × Material known to be incompatible with layer thickness
- * BioClear has undergone rigorous testing in accordance with ISO 10993, successfully meeting standards for cytotoxicity, irritation, sensitization, pyrogenicity, and toxicity. Producing biocompatible parts requires a specialized post-processing method, with sterilization as the final step. Learn more: https://support.stratasys.com/en/Materials/Stereolithography/Somos-BioClear
- ** DMX SL-100 is suitable for composite core application only
- † Watershed AF is suitable for investment casting patterns only

Material validation is not a guarantee of high quality part production, nor a guarantee of zero build failures. Please contact Stratasys for more information.