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MATERIAL DATA SHEET
SLA

Somos® WaterShed® XC+

Stereolithography

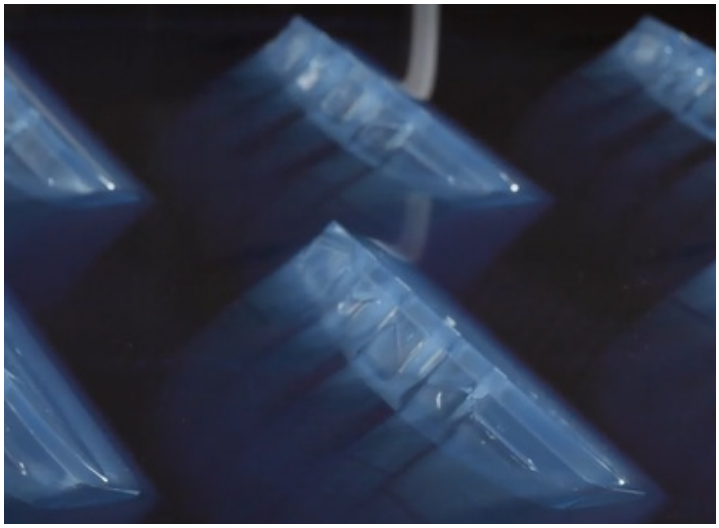
Based on one of the industry's most popular stereolithography materials, Somos® WaterShed XC+ was created specifically for the latest Neo®800+ system while keeping all of the benefits of the original WaterShed material.

Whether you're a designer looking for highly detailed parts with superior clarity, chemical and water resistance, or an engineer focusing on durability for functional testing, Somos® WaterShed® XC+ simulates the look and feel of clear thermoplastics.

Somos® WaterShed® XC+ produces optically clear parts with a smooth finish. Developed specifically for use on the Neo®800+ System, this latest version enables much faster build speeds. This versatility means Somos® WaterShed® XC+ is the ideal material in markets such as automotive, aerospace and consumer electronics for applications including packaging, RTV patterns, functional prototypes, and durable concept models.

Key Benefits

- Easy to use and finish
- Superior moisture and chemical resistance
- Exceptional clarity and nearly colorless
- Faster print speeds compared to previous generations.



Applications

- Consumer products
- Fluid/air flow analysis
- Duct work
- Lenses and other clear applications

	Liquid Properties	Optical Properties		
Appearance	Optically clear, near colorless	E_C	8.6 mJ/cm^2	[critical exposure]
Viscosity	245 - 345 cP @ 30 °C or 295 +/- 50	D_p	0.0045 in./0.1143 mm	[slope of cure-depth vs ln (E) curve]
Density	~1.10 g/cm^3 @ 25 °C	E_{10}	79 mJ/cm^2	[exposure that gives 0.254 mm (.010 inch) thickness]

	Mechanical Properties	UV Postcure	
ASTM Method	Property Description	Metric	Imperial
D638M	Tensile Strength at Break	27 ± 5 MPa	5.3 ± 0.7 ksi
D638M	Yield Stress	37 ± 5 MPa	3.9 ± 0.7 ksi
D638M	Elongation at Break	12 ± 3%	
D638M	Elongation at Yield	3 ± 0.1%	
D638M	Tensile Modulus	2300 ± 300 MPa	334 ± 44 ksi
D790M	Flexural Strength	59 ± 1 MPa	8.5 ± 0.1 ksi
D738	Flexural Modulus	1950 ± 56 MPa	283 ± 8 ksi
D256A	Izod Impact (Notched)	25 ± 5 J/m	0.47 ± 0.1 ft-lb/in
D570-98	Water Absorption	0.28% +/- 0.02%	

	Thermal/Electrical/Optical Properties	UV Postcure	
ASTM Method	Property Description	Metric	Imperial
E831-05	C.T.E. -40 - 0 °C (-40 - 32 °F)	TBD	TBD
E831-05	C.T.E. 0 - 50 °C (32 - 122 °F)	TBD	TBD
E831-05	C.T.E. 50 - 100 °C (122 - 212 °F)	TBD	TBD
E831-05	C.T.E. 100 - 150 °C (212 - 302 °F)	TBD	TBD
D150-98	Dielectric Constant 60 Hz	TBD	
D150-98	Dielectric Constant 1 KHz	TBD	
D150-98	Dielectric Constant 1 MHz	TBD	
D149-97a	Dielectric Strength	TBD	TBD
D5023-15	Tg	48 ± 1 °C	118 ± 2 °F
D648	HDT @ 0.46 MPa (66 psi)	50 ± 1 °C	122 ± 2 °F
D648	HDT @ 1.81 MPa (264 psi)	TBD	TBD
D542	Index of Refraction (cured)	TBD	

These values may vary and depend on individual machine settings, cleaning practices, post curing times and environmental factors such as ambient relative humidity and temperature. Please refer to the Material User Guide for more information.

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ISO 9001:2015
Certified

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