stratasys

MATERIAL DATA SHEET
SLA

Somos® WaterShed® XC+

Stereolithography

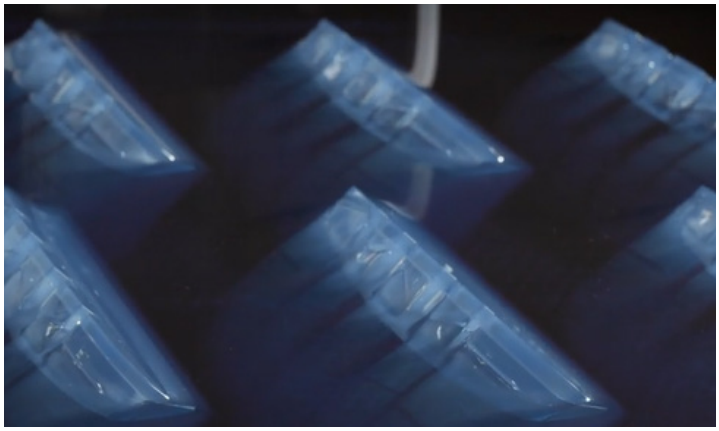
Based on one of the industry's most popular stereolithography materials, Somos® WaterShed XC+ was created specifically for the latest Neo®800+ system while keeping all of the benefits of the original WaterShed material.

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	300 ± 50 @ 30 °C	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	2,300 ± 300 MPa	334 ± 44 ksi
D790M	Flexural Strength	59 ±1 MPa	8.5 ± 0.1 ksi
D738	Flexural Modulus	2,000 ± 100 MPa	290 ± 15 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)	66 µm/m °C	37 µin/in.°F
E831-05	C.T.E. 0 - 50 °C (32 - 122 °F)	102 µm/m °C	57 µin/in.°F
E831-05	C.T.E. 50 - 100 °C (122 - 212 °F)	164 µm/m °C	91 µin/in.°F
E831-05	C.T.E. 100 - 150 °C (212 - 302 °F)	162 µm/m °C	90 µin/in.°F
D150-98	Dielectric Constant 60 Hz	4.2	
D150-98	Dielectric Constant 1 KHz	4.1	
D150-98	Dielectric Constant 1 MHz	3.7	
D5023-15	Tg	48 ± 1 °C	118 ± 2 °F
D648	HDT @ 0.46 MPa (66 psi)	50 ± 2 °C	122 ± 2 °F
D648	HDT @ 1.81 MPa (264 psi)	49 ± 2 °C	120 ± 2 °F
D542	Index of Refraction (cured)	1.518	

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.

stratasys

stratasys.com
ISO 9001:2015
Certified

Stratasys Headquarters
7665 Commerce Way,
Eden Prairie, MN 55344
+1 800 801 6491 (US Toll Free)
+1 952 937-3000 (Intl)
+1 952 937-0070 (Fax)

1 Holtzman St., Science Park,
PO Box 2496
Rehovot 76124, Israel
+972 74 745 4000
+972 74 745 5000 (Fax)