

# LET'S MANUFACTURE TOMORROW



**SOMOS®  
WATERSHED XC  
11122**



## **SOMOS® WATERSHED XC 11122**

**An easy to use, low viscosity, water-resistant stereolithography material for use in numerous applications**

As one of the industry's most popular materials, Somos® WaterShed XC 11122 is the clear solution for numerous applications. Whether you're a designer looking for highly detailed parts with superior clarity and water resistance, or an engineer focusing on durability for functional testing, Somos® WaterShed XC 11122 mimicks the look and feel of clear thermoplastics, such as ABS and PBT.

### **Key Benefits**

- Easy to use and finish
- Superior moisture resistance
- Exceptional clarity

### **Applications**

- Consumer products
- Fluid flow analysis
- Duct work
- Investment casting
- Lenses

Somos® WaterShed XC 11122 produces optically clear parts with a smooth finish and it's ease of use helps to shorten product development and testing. This versatility means Somos® WaterShed XC 11122 is the ideal material in markets such as automotive, aerospace and consumer electronics for applications including packaging, RTV patterns, durable concept models, wind tunnel testing and investment casting patterns.

Liquid Properties		Optical Properties		
Appearance	Optically clear, near colorless	E <sub>c</sub>	8.4 mJ/cm <sup>2</sup>	[critical exposure]
Viscosity	~260 cps @ 30°C	D <sub>p</sub>	4.15 mil	[slope of cue-depth vs ln (E)curve]
Density	~1.12 g/cm <sup>3</sup> @ 25°C	E <sub>10</sub>	93.4 mJ/cm <sup>2</sup>	[exposure that gives 0.254 mm(.010 inch) thickness]
		D542	1.514	Index of Refraction (cured)

Mechanical Properties		UV Postcure	
ASTM Method	Property Description	Metric	Imperial
D638M	Tensile Strength at Break	50.4 MPa	7.3 ksi
D638M	Elongation at Break	15.5%	
D638M	Elongation at Yield	3%	
D638M	Tensile Modulus	2,770 MPa	402 ksi
D790M	Flexural Strength	68.7 MPa	10.0 ksi
D2240	Flexural Modulus	2,205 MPa	320 ksi
D256A	Izod Impact (Notched)	25 J/m	0.47 ft-lb/in
D570-98	Water Absorption	0.35%	

Thermal/Electrical Properties		UV Postcure	
ASTM Method	Property Description	Metric	Imperial
E831-05	C.T.E. -40 - 0°C (-40 - 32°F)	67 μm/m°C	37 μin/in°F
E831-05	C.T.E. 0 - 50°C (32 - 122°F)	93 μm/m°C	52 μin/in°F
E831-05	C.T.E. 50 - 100°C (122 - 212°F)	180 μm/m°C	100 μin/in°F
E831-05	C.T.E. 100 - 150°C (212 - 302°F)	187 μm/m°C	104 μin/in°F
D150-98	Dielectric Constant 60 Hz	4.0	
D150-98	Dielectric Constant 1 KHz	3.8	
D150-98	Dielectric Constant 1 MHz	3.5	
D149-97a	Dielectric Strength	15.9 kV/mm	404 V/mil
E1545-00	T <sub>g</sub>	43°C	109°F
D648	HDT @ 0.46 MPa (66 psi)	50°C	122°F
D648	HDT @ 1.81 MPa (264 psi)	49°C	120°F

These values may vary and depend on individual machine processing and post-curing practices.

**For more information and buying options, please visit [www.dsm.com/additive-manufacturing/](http://www.dsm.com/additive-manufacturing/)**

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