



# Somos<sup>®</sup> WaterShed XC 1122

Stereolithography



# 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.

**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.

## Key Benefits

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

## Ideal Applications

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

## Technical Data

Liquid Properties		Optical Properties		
Appearance	Optically clear, near colorless	E <sub>c</sub>	11.5 mJ/cm <sup>2</sup>	[critical exposure]
Viscosity	~260 cps @ 30°C	D <sub>p</sub>	6.5 mils	[slope of cure-depth vs. ln (E) curve]
Density	~1.12 g/cm <sup>3</sup> @ 25°C	E <sub>10</sub>	54 mJ/cm <sup>2</sup>	[exposure that gives 0.254 mm (.010 inch)thickness]
		D542	1.514	Refraction Index (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 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
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.

[More information at am.covestro.com](https://www.am.covestro.com)



Covestro Deutschland AG  
Kaiser-Wilhelm-Allee 60  
51373 Leverkusen  
Germany

[www.covestro.com](https://www.covestro.com)

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<sup>1</sup>Please see the "Guidance on Use of Covestro Products in a Medical Application" document.

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