

Somos® WaterShed XC 11122

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

Product Description

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 flow analysis
- Duct work
- Investment casting
- Lenses

Somos® WaterShed XC 11122 Technical Data

Liquid Properties		Optical Properties		
Appearance	Optically clear, near colorless	E _c	11.5 mJ/cm ²	[critical exposure]
Viscosity	~260 cps @ 30°C	D _p	6.50 mils	[slope of cure-depth vs. ln (E) curve]
Density	~1.12 g/cm ³ @ 25°C	E ₁₀	54 mJ/cm ²	[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 _g	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.



**19^{bis} av René Duguay Trouin
78960 Voisins le Bretonneux**

**Tel: + 33 (0)1 30 60 03 33
Email: info@3dsolutions.fr
www.3dsolutions.fr**

**DSM Functional Materials
Somos® Material Group**

North America
1122 St. Charles Street
Elgin, Illinois 60120
USA
Phone: +1.847.697.0400

Europe
Slachthuisweg 30
3151 XN Hoek van Holland
The Netherlands
Phone: +31.174.315.391

China
476 Li Bing Road
Zhangjiang Hi-Tech Park
Pudong New Area
Shanghai 201203, China
Phone: +86.21.6141.8064

Visit us online at www.dsm.com/somos

NOTICE : Somos® is a registered trademark of Royal DSM N.V. Somos® is an unincorporated subsidiary of DSM Desotech Inc. The information presented herein is based on generally accepted analytical and testing practices and is believed to be accurate. However, DSM Desotech expressly disclaims any product warranties which may be implied including warranties or merchantability and/or fitness for a particular purpose. DSM Desotech's products are sold subject to DSM Desotech's standard terms and conditions of sale, copies of which are available upon request. Purchasers are responsible for determining the suitability of the product for its intended use and the appropriate manner of utilizing the product in purchaser's production processes and applications so as to insure safety, quality and effectiveness. Purchasers are further responsible for obtaining necessary patent rights to practice any invention in connection with the use of purchased product and any other product or process. DSM Desotech reserves the right to change specifications of their products without notice. © 2015 DSM IP ASSESTS B.V. All rights reserved.

052015 | SOMOS-WATERSHED-SS-PDS44