SOMOS® WATERSHED XC 11122

An optically clear, water-resistant, versatile stereolithography material perfectly suited to a wide range of applications.



Prototyping Technologies

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 its 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

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. In (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%	15.5%	
D638M	Elongation at Yield	3%	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%	0.35%	

THERMAL/ELECTRICAL PROPERTIES OVERLEAF >>

The information in this data sheet, as supplied by the material manufacturers, is provided for general guidance only, in good faith and without warranty. The performance characteristics may vary depending on the application, operating conditions or other materials in combination and it is the responsibility of the customer to determine the suitability of the product for its end use.

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Drumlord Limited Prototyping Technologies

THERMAL/ELECTRICAL PROPERTIES		UV POSTCURE		
ASTM METHOD	PROPERTY DESCRIPTION	METRIC	IMPERIAL	
E831-05	C.T.E40 - 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	4.0	
D150-98	Dielectric Constant 1 KHz	3.8	3.8	
D150-98	Dielectric Constant 1 MHz	3.5	3.5	
D149-97a	Dielectric Strength	15.9 kV/mm	404 V/mil	
E1545-00	Tg	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°C	

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

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