SOMOS®
WATERSHED BLACK

Somos® WaterShed Black provides a solution to build rigid, tough parts, while eliminating the need for painting. With similar properties and processing as Somos® WaterShed XC 11122, this multipurpose resin provides the same benefits in a black stereolithography material.

- **Black material based on Somos® WaterShed XC 11122**
- **Resin for stereolithography printing**

With Somos® WaterShed Black, there is a new stereolithography resin, black in color, on the market. With faster processing times and the elimination of the need for painting, Somos® WaterShed Black is a time and resource saver.

With its improved formulation, Somos® WaterShed Black has up to a 50% faster processing speed, offering minimal finishing and more consistent processing over time. WaterShed Black is a truer black color off the machine vs. others currently available. This material also has a smooth surface finish, as well as superior moisture and chemical resistance.

Key Benefits

- Ease-of-use and fast processing with minimal finishing, more consistent processing over time
- Truer black color off the machine
- Based on proven technology of Somos® WaterShed XC 11122
- Smooth surface finish
- Superior moisture and chemical resistance

Applications

- Durable, stiff, tough parts
- Automotive components
- Electronic housings
- Packaging
- Functional prototypes and end use parts

Liquid Properties		*Optical Properties*		
Appearance	Black	E_c	11.5 mJ/cm^2	[critical exposure]
Viscosity	~260 cps @ 30°C	D_p	6.50 mils	[slope of cue-depth vs In (E)curve]
Density	~1.12 g/cm3 @ 25°C	E_{10}	54 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	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	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°F

Information based on Somos® WaterShed XC 11122.

For more information and buying options, please visit www.dsm.com/additive-manufacturing/

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