Somos® WaterShed Black

Stereolithography

Somos® WaterShed Black

Multipurpose resin that prints 50% faster than alternatives, eliminates the need for painting.

Somos® WaterShed Black, with similar properties and processing as **Somos® WaterShed XC 11122**, has up to a 50% faster processing speed, offering minimal finishing and more consistent processing over time. Compared to alternatives currently on the market, **Somos® WaterShed Black** prints a more true black color off the machine. The material offers a smooth surface finish, as well as higher moisture and chemical resistance.

Key Benefits

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

Ideal Applications

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

Technical Data

Liquid Properties		Optical Properties		
Appearance	Black	E_C	8.4 mJ/cm²	[critical exposure]
Viscosity	~260 cps @ 30°C	D_P	4.15 mils	[slope of cure-depth vs. ln (E) curve]
Density	~1.12 g/cm³ @ 25°C	E_{10}	93.4 mJ/cm²	[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 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	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

Mechanical and Thermal/Electrical Properties based on **Somos® WaterShed XC 11122**. The Liquid and Optical Properties are specific to **WaterShed Black**. These values may vary and depend on individual machine processing and post-curing practices.

More information at am.covestro.com

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Edition: March 2022 · Printed in Germany