



Somos® WaterClear™ Ultra 10122

An optically clear stereolithography (SLA) material tailored for colorless, functional parts with excellent temperature resistance.

Product Description

Somos® WaterClear Ultra 10122 is an optically clear stereolithography material that is easy to use and fast to build. This material produces colorless, functional and accurate parts that simulate an acrylic appearance. Parts produced with Somos® WaterClear Ultra 10122 exhibit excellent temperature resistance. Somos® WaterClear Ultra 10122 is ideal for applications such as master patterns, concept and functional models. This material also provides refractive values similar to engineered plastics for functional testing in optical light transmission work.

Key Benefits

- Higher optical clarity
- Superior moisture resistance
- Easy to use and finish

Ideal Applications

- Automotive lenses
- Bottles
- Lenses
- Light Pipes

Somos® WaterClear™ Ultra 10122 Technical Data

Liquid Properties			
Appearance		Optically clear, colorless	
Mechanical Properties		UV Postcure	
ASTM Method	Property Description	Metric	Imperial
D638M	Tensile Strength at Break	56 MPa	8.1 ksi
D638M	Tensile Modulus	2,880 MPa	418 ksi
D638M	Elongation at Break	7.5%	
D638M	Elongation at Yield	4%	
D638M	Poisson's Ratio	0.41	
D790M	Flexural Strength	87 MPa	12.2 ksi
D2240	Flexural Modulus	2,490 MPa	361 ksi
D256A	Izod Impact (notched)	25 J/m	0.47 ft-lb/in
D2240	Hardness (Shore D)	87	
D570-98	Water Absorption	1.1 %	
Thermal/Electrical Properties		UV Postcure	
ASTM Method	Property Description	Metric	Imperial
E831-05	C.T.E. -40—0°C (-40– 32°F)	65 µm/m°C	36 µin/in°F
E831-05	C.T.E. 0—50°C (32– 122°F)	90 µm/m°C	50 µin/in°F
E831-05	C.T.E. 50—100°C (122– 212°F)	168 µm/m°C	93 µin/in°F
E831-05	C.T.E. 100—150°C (212– 302°F)	159 µm/m°C	88 µin/in°F
D150-98	Dielectric Constant 60 Hz	3.1	
D150-98	Dielectric Constant 1 KHz	3.5	
D150-98	Dielectric Constant 1 MHz	3.1	
D149-97a	Dielectric Strength	15 kV/mm	381 V/mil
E1545-00	Tg	44°C	111°F
D648	HDT @ 0.46 MPa (66 psi)	47°C	117°F
D648	HDT @ 1.81 MPa (264 psi)	43°C	109°F
D648	Thermal Postcure: HDT @ 0.46 MPa (66 psi)	60°C	140°F
D648	Thermal Postcure: HDT @ 1.81 MPa (264 psi)	50°C	122°F

PERIDOT INC
 14508 Bruick Drive
 Hoagland, IN 46745



PH: 260.639.6500
 FX: 260.639.6503
 www.peridotinc.com