WaterShed XC 11122

Unspecified

DSM Somos®

Message:

DSM's Somos® WaterShed XC 11122 is a low viscosity liquid photopolymer that produces strong, tough, water-resistant, ABS-like parts. Most importantly, parts created with Somos® WaterShed XC 11122 are nearly colorless, and look more like true, clear engineered plastic.
In addition, Somos® WaterShed XC 11122 has been formulated with the Somos® Oxetane Advantage™ - an advanced chemistry platform that produces parts with outstanding water resistance and high dimensional stability.
Applications
This ABS-like photopolymer is used in solid imaging processes, like stereolithography, to build three-dimensional parts. Somos® WaterShed XC 11122 offers many properties that mimic traditional engineering plastics, including ABS and PBT. This makes the material ideal for many applications in the automotive, medical and consumer electronic markets and include lenses, packaging, water flow analysis, RTV patterns, durable concept models, wind tunnel testing and investment casting patterns.

General Information	
Features	Good Dimensional Stability
	Good Toughness
	High Clarity
	High Strength
	Low to No Water Absorption
	Low Viscosity
	Opticals
Uses	Automotive Applications
	Electrical/Electronic Applications
	Engineering Parts
	Lenses
	Medical/Healthcare Applications
	Modeling Material
	Molds/Dies/Tools
	Packaging
	Patterns
	Prototyping
Appearance	Clear/Transparent
Forms	Liquid
Processing Method	3D Printing, Stereolithography

Physical	Nominal Value	Unit	Test Method
Density	1.12	g/cm³	
Water Absorption (Equilibrium)	0.35	%	ASTM D570
Viscosity (30°C)	260	mPa·s	
Graves Tear	150.3	kN/m	ASTM D1004
Critical Exposure	11.5	mJ/cm²	

Penetration Depth	165.1	µm	
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	2650 to 2880	MPa	ASTM D638
Tensile Strength (Break)	47.1 to 53.6	MPa	ASTM D638
Tensile Elongation			ASTM D638
Yield	3.0	%	
Break	11 to 20	%	
Flexural Modulus	2040 to 2370	MPa	ASTM D790
Flexural Strength	63.1 to 74.2	MPa	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact	21 to 32	J/m	ASTM D256A
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			ASTM D648
0.45 MPa, Unannealed	45.9 to 54.5	°C	
1.8 MPa, Unannealed	49.0 to 49.7	°C	
Glass Transition Temperature	39.0 to 46.0	°C	ASTM E1545
CLTE - Flow			ASTM E831
-40 to 0°C	6.6E-5 to 6.7E-5	cm/cm/°C	
0 to 50°C	9.0E-5 to 9.6E-5	cm/cm/°C	
50 to 100°C	1.7E-4 to 1.9E-4	cm/cm/°C	
100 to 150°C	1.9E-4	cm/cm/°C	
Electrical	**Nominal Value**	**Unit**	**Test Method**
Dielectric Strength	15 to 16	kV/mm	ASTM D149
Dielectric Constant			ASTM D150
60 Hz	3.90 to 4.10		
1 kHz	3.70 to 3.90		
1 MHz	3.40 to 3.50		
Optical	**Nominal Value**		**Test Method**
Refractive Index	1.512 to 1.515		ASTM D542

Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China


WECHAT