

## DSM Somos® 9120 Epoxy Photopolymer (Unverified Data\*\*)

Category : Polymer , Rapid Prototyping Polymer , Thermoset , Epoxy

### Material Notes:

**Description**DSM Somos® 9120 is a liquid photopolymer that produces robust, functional and accurate parts using stereolithography machines. The material offers superior chemical resistance, a wide processing latitude and excellent tolerance to a broad temperature and humidity range during and after build. Parts created from Somos® 9120 exhibit superior fatigue properties, strong memory retention and high quality up-facing and down-facing surfaces. Somos® 9120 also offers a good balance of properties between rigidity and functionality. The resulting part properties are ideal for master patterns in rubber molding applications. This material is also useful in creating parts for applications where durability and robustness are critical requirements (e.g. automobile components, electronic housings, medical products, large panels and snap-fit parts).  
**Application**Somos® 9120 Photopolymer is used in the solid imaging process to build three-dimensional parts.  
**Information Provided by** DSM Desotech Inc.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_DSM-Somos-9120-Epoxy-Photopolymer-nbspUnverified-Data.php](http://www.lookpolymers.com/polymer_DSM-Somos-9120-Epoxy-Photopolymer-nbspUnverified-Data.php)

Physical Properties	Metric	English	Comments
Density	1.13 g/cc	0.0408 lb/in³	
	@Temperature 25.0 °C	@Temperature 77.0 °F	
Viscosity	450 cP	450 cP	
	@Temperature 30.0 °C	@Temperature 86.0 °F	

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	80 - 82	80 - 82	ASTM D2240
Tensile Strength, Yield	30.0 - 32.0 MPa	4350 - 4640 psi	ASTM D638M
Elongation at Yield	15 - 25 %	15 - 25 %	ASTM D638M
Modulus of Elasticity	1.227 - 1.462 GPa	178.0 - 212.0 ksi	ASTM D638M
Flexural Strength	41.0 - 46.0 MPa	5950 - 6670 psi	ASTM D790M
Flexural Modulus	1.31 - 1.455 GPa	190 - 211.0 ksi	ASTM D790M
Izod Impact, Notched	0.480 - 0.530 J/cm	0.899 - 0.993 ft-lb/in	ASTM D256A

Thermal Properties	Metric	English	Comments
Deflection Temperature at 0.46 MPa (66 psi)	52.0 - 61.0 °C	126 - 142 °F	ASTM D648

Descriptive Properties	Value	Comments
Appearance	Transparent Amber	

Descriptive Properties	Value	Comments
$E_{10}$ (mJ/cm <sup>2</sup> )	65	Exposure that gives 0.254mm thickness
$E_c$ (mJ/cm <sup>2</sup> )	10.9	Critical exposure

## Contact Songhan Plastic Technology Co.,Ltd.

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