

DSM Somos® PerFORM Stereolithography Polymer, UV Postcure

Category : Polymer , Rapid Prototyping Polymer

Material Notes:

PerFORM produces strong, stiff, high-temperature resistant composite parts on standard 355 nm stereolithography machines. This material's lower viscosity makes processing parts faster. It exhibits superior sidewall quality, along with excellent detail resolution compared to other composite stereolithography materials. Somos® PerFORM is an easy to process material with excellent detail resolution. It is the ideal material for creating strong, stiff parts with excellent high heat resistance, including wind tunnel models for aerospace and automotive applications, as well as rapid tooling for injection molding. Information provided by DSM.

Order this product through the following link:

http://www.lookpolymers.com/polymer_DSM-Somos-PerFORM-Stereolithography-Polymer-UV-Postcure.php

Physical Properties	Metric	English	Comments
Density	1.61 g/cc	0.0582 lb/in³	Liquid
Water Absorption	0.2 %	0.2 %	ASTM D570-98
Viscosity	1000 cP @Temperature 30.0 °C	1000 cP @Temperature 86.0 °F	Liquid

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	94	94	ASTM D2240-05
Tensile Strength, Ultimate	68.0 MPa	9860 psi	ASTM D638-10
Elongation at Break	1.1 %	1.1 %	ASTM D638-10
Modulus of Elasticity	10.5 GPa	1520 ksi	ASTM D638-10
Flexural Strength	120 MPa	17400 psi	ASTM D790-10
Flexural Modulus	10.0 GPa	1450 ksi	ASTM D790-10
Poissons Ratio	0.32	0.32	ASTM D638-10
Izod Impact, Notched	0.170 J/cm	0.318 ft-lb/in	ASTM D256-10

Thermal Properties	Metric	English	Comments
CTE, linear	29.9 µm/m-°C	16.6 µin/in-°F	ASTM E831-12
	@Temperature -40.0 - 0.000 °C	@Temperature -40.0 - 32.0 °F	
	49.4 µm/m-°C	27.4 µin/in-°F	ASTM E831-12
	@Temperature 0.000 - 50.0 °C	@Temperature 32.0 - 122 °F	

Thermal Properties	Metric n/m-°C	English n/in-°F	Comments
	@Temperature 50.0 - 100 °C	@Temperature 122 - 212 °F	ASTM E831-12
	80.9 µm/m-°C	44.9 µin/in-°F	
	@Temperature 100 - 150 °C	@Temperature 212 - 302 °F	ASTM E831-12
Deflection Temperature at 1.8 MPa (264 psi)	82.0 °C	180 °F	ASTM D648-07
Glass Transition Temp, Tg	72.0 °C	162 °F	ASTM E1545-11

Electrical Properties	Metric	English	Comments
	3.6	3.6	
Dielectric Constant	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	ASTM D150-11
	3.8	3.8	
	@Frequency 1000 Hz	@Frequency 1000 Hz	ASTM D150-11
	4.0	4.0	
	@Frequency 60.0 Hz	@Frequency 60.0 Hz	ASTM D150-11
Dielectric Strength	26.3 kV/mm	668 kV/in	ASTM D149-09

Descriptive Properties	Value	Comments
Appearance	Off White	
DP (mils)	4.3	Slope of cure-depth vs. ln (E) curve
E10 (mJ/cm2)	80	exposure that gives 0.254 mm (0.010 inch) thickness
Ec (mJ/cm2)	7.8	Critical Exposure

Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com

Email : sales@lookpolymers.com

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China