

# Somos<sup>®</sup> GP Plus<sup>™</sup> 14122

## Stereolithography

**A universal stereolithography material designed to produce accurate, detailed parts across a wide range of applications.**

**Somos<sup>®</sup> GP Plus 14122** sets the standard for 3D printing prototypes. It is easily integrated in production cycles to test designs ensuring proper functionality of parts before they are launched into full production – providing customers the opportunity to get to market quickly. Parts produced with **Somos<sup>®</sup> GP Plus 14122** are durable, accurate and moisture resistant. This material is ideal for functional prototypes, concept models and low volume production parts.



### Key Benefits

- Extremely accurate
- Excellent humidity resistance
- Very durable

### Ideal Applications

- Aerospace parts
- Automotive parts
- Consumer product parts
- Low volume production parts

LIQUID PROPERTIES		OPTICAL PROPERTIES		
Appearance	Opaque White	$E_c$	13 mJ/cm <sup>2</sup>	[critical exposure]
Viscosity	~340 cps @ 30°C	$D_p$	6.25 mils	[slope of cure-depth vs. ln (E) curve]
Density	~1.16 g/cm <sup>3</sup> @ 25°C	$E_{10}$	64 mJ/cm <sup>2</sup>	[exposure that gives 0.254 mm (.010 inch) thickness]

MECHANICAL PROPERTIES		UV POSTCURE	
ASTM Method	Property Description	Metric	Imperial
D638M	Tensile Modulus	2,510 MPa	364 ksi
D638M	Tensile Strength	37 MPa	5.4 ksi
D638M	Elongation at Break	7.5%	
D638M	Elongation at Yield	3%	
D790M	Flexural Strength	67.3 MPa	9.8 ksi
D2240	Flexural Modulus	2,200 MPa	319 ksi
D256A	Izod Impact (Notched)	26 J/m	0.49 ft-lb/in
D638M	Poisson's Ratio	0.37%	
D2240	Hardness (Shore D)	79	
D570-98	Water Absorption	0.4%	

THERMAL/ELECTRICAL PROPERTIES		UV POSTCURE	
ASTM Method	Property Description	Metric	Imperial
E831-05	C.T.E. -40–0°C (-40–32°F)	63 $\mu\text{m}/\text{m}^{\circ}\text{C}$	35 $\mu\text{in}/\text{in}^{\circ}\text{F}$
E831-05	C.T.E. 0–50°C (32–122°F)	89 $\mu\text{m}/\text{m}^{\circ}\text{C}$	49 $\mu\text{in}/\text{in}^{\circ}\text{F}$
E831-05	C.T.E. 50–100°C (122–212°F)	170 $\mu\text{m}/\text{m}^{\circ}\text{C}$	95 $\mu\text{in}/\text{in}^{\circ}\text{F}$
E831-05	C.T.E. 100–150°C (212–302°F)	172 $\mu\text{m}/\text{m}^{\circ}\text{C}$	96 $\mu\text{in}/\text{in}^{\circ}\text{F}$
D150-98	Dielectric Constant 60 Hz	3.8	
D150-98	Dielectric Constant 1 KHz	3.7	
D150-98	Dielectric Constant 1 MHz	3.4	
D149-97A	Dielectric Strength	17.9 kV/mm	454 V/mil
D648	HDT @ 0.46 MPa (66 psi)	46°C	115°F
D648	HDT @ 1.81 MPa (264 psi)	41°C	106°F

These values may vary and depend on individual machine processing and post-curing practices.

### Stratasys Headquarters

7665 Commerce Way,  
Eden Prairie, MN 55344  
+1 800 801 6491 (US Toll Free)  
+1 952 937-3000 (Intl)  
+1 952 937-0070 (Fax)

[stratasys.com](http://stratasys.com)

ISO 9001:2015 Certified

1 Holtzman St., Science Park,  
PO Box 2496  
Rehovot 76124, Israel  
+972 74 745 4000  
+972 74 745 5000 (Fax)

