



# Somos® GP Plus

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

## Product Description

Somos® GP Plus 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® GP Plus 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

# Somos® GP Plus Technical Data

Liquid Properties		Optical Properties		
Appearance	Opaque White	$E_c$	13.0 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	0.41	
D2240	Hardness (Shore D)	79	
D570-98	Water Absorption	0.40%	

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.

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