



# Somos® EvoLve 128

A durable stereolithography material that creates parts ready for functional testing

## Product Description

Somos® EvoLve 128 is a durable stereolithography material that produces accurate, high-detailed parts and has been designed for easy finishing. It has a look and feel that is almost indistinguishable from finished traditional thermoplastics, making it perfect for building parts and prototypes for functional testing applications – resulting in time, money and material savings during product development.

Somos® EvoLve 128 is an outstanding material for industries such as aerospace, automotive, medical, consumer products and electronics.

## Key Benefits

- Easy to clean & finish
- High strength & durability
- Accurate & dimensionally stable
- High detail

## Ideal Applications

- Tough, functional prototypes
- Snap-fit designs
- Jigs & fixtures

# Somos® EvoLve 128 Technical Data

Liquid Properties		Optical Properties		
Appearance	White	$E_c$	9.3 mJ/cm <sup>2</sup>	[critical exposure]
Viscosity	~380 cps @ 30°C	$D_p$	4.3 mils	[slope of cure-depth vs. ln (E) curve]
Density	~1.12 g/cm <sup>3</sup> @ 25°C	$E_{10}$	95.1 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	2,964 MPa	430 ksi
D638M	Tensile Strength at Yield	56.8 MPa	8.2 ksi
D638M	Elongation at Break	11%	
D2240	Flexural Modulus	2,654 MPa	385 ksi
D256A	Izod Impact (Notched)	38.9 J/m	0.729 ft-lb/in
D2240	Hardness (Shore D)	82	
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)	56.5 $\mu\text{m}/\text{m}^\circ\text{C}$	31.4 $\mu\text{in}/\text{in}^\circ\text{F}$
E831-05	C.T.E. 0 - 50°C (32 - 122°F)	76.5 $\mu\text{m}/\text{m}^\circ\text{C}$	42.5 $\mu\text{in}/\text{in}^\circ\text{F}$
E831-05	C.T.E. 50 - 100°C (122 - 212°F)	163 $\mu\text{m}/\text{m}^\circ\text{C}$	90.8 $\mu\text{in}/\text{in}^\circ\text{F}$
E831-05	C.T.E. 100 - 150°C (212 - 302°F)	174 $\mu\text{m}/\text{m}^\circ\text{C}$	96.5 $\mu\text{in}/\text{in}^\circ\text{F}$
D150-98	Dielectric Constant 60 Hz	3.9	
D150-98	Dielectric Constant 1 KHz	3.7	
D150-98	Dielectric Constant 1 MHz	3.5	
D149-97a	Dielectric Strength	31 kV/mm	788 V/mil
D648	HDT @ 0.46 MPa (66 psi)	52.3°C	126°F
D648	HDT @ 1.81 MPa (264 psi)	49.6°C	121°F

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

## DSM Functional Materials Somos® Material Group

### North America

1122 St. Charles Street  
Elgin, Illinois 60120  
USA  
Phone: +1.847.697.0400

### Europe

Slachthuisweg 30  
3151 XN Hoek van Holland  
The Netherlands  
Phone: +31.174.315.391

### China

476 Li Bing Road  
Zhangjiang Hi-Tech Park  
Pudong New Area  
Shanghai 201203, China  
Phone: +86.21.6141.8064

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