

The  
Design to  
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# *MATERIAL* **EVOLVE 128**

## OVERVIEW

For more information or advice:



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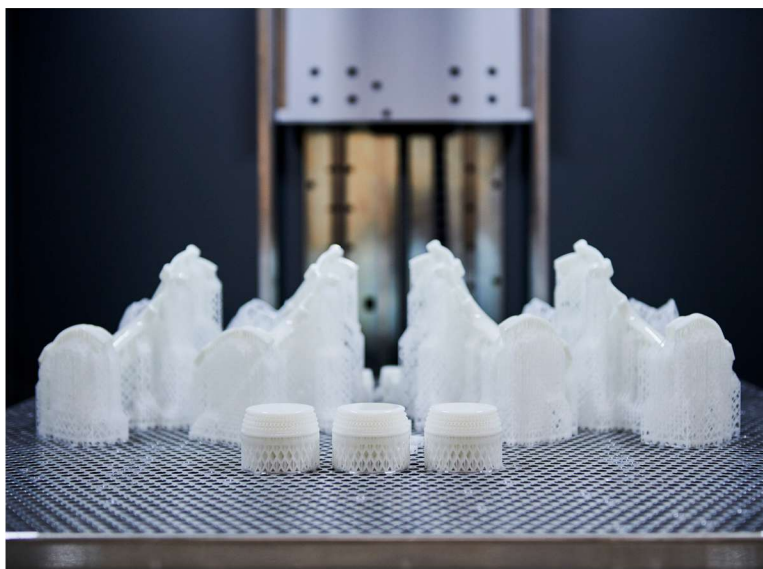
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# Somos® EvoLve™ 128

Stereolithography

A resin offering durability and fast processing times.

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 excellent for building parts and prototypes for functional testing applications – resulting in time, money and material savings during product development. Somos® EvoLve is an excellent 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

LIQUID PROPERTIES		OPTICAL PROPERTIES		
Appearance	Off-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	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	0.4%	

THERMAL/ELECTRICAL PROPERTIES		UV POSTCURE	
ASTM	Property Description	Metric	Imperial
E831-05	C.T.E. 40°C – 0°C (-40°F – 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°C – 50°C (32°F – 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°C – 100°C (122°F – 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°C – 150°C (212°F – 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	4.3	
D150-98	Dielectric Constant 1KHz	3.7	
D150-98	Dielectric Constant 1MHz	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.

## Find the Perfect Material for Your Application

From strength and flexibility to biocompatibility and color, our experts help you select materials that meet your part performance and production goals - every time.

TALK TO AN EXPERT

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Tailored  
Advice