



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 ² | [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 ³ @ 25°C | E_{10} | 95.1 mJ/cm ² | [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 µm/m°C | 31.4 µin/in°F |
| E831-05 | C.T.E. 0 - 50°C (32 - 122°F) | 76.5 µm/m°C | 42.5 µin/in°F |
| E831-05 | C.T.E. 50 - 100°C (122 - 212°F) | 163 µm/m°C | 90.8 µin/in°F |
| E831-05 | C.T.E. 100 - 150°C (212 - 302°F) | 174 µm/m°C | 96.5 µin/in°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.

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