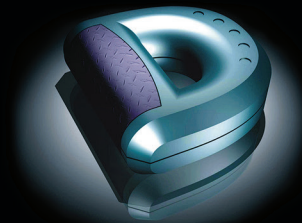


SOMOS® EVOLVE 128

A durable stereolithography material that creates parts ready for functional testing.



Drumlord Limited
Prototyping Technologies

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% | 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 | 82 |
| D570-98 | Water Absorption | 0.40% | 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 | 3.9 |
| D150-98 | Dielectric Constant 1 KHz | 3.7 | 3.7 |
| D150-98 | Dielectric Constant 1MHz | 3.5 | 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.

The information in this data sheet, as supplied by the material manufacturers, is provided for general guidance only, in good faith and without warranty. The performance characteristics may vary depending on the application, operating conditions or other materials in combination and it is the responsibility of the customer to determine the suitability of the product for its end use.

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