



# MicroFine<sup>™</sup> Green Resin

PRODUCT SPECIFICATIONS

**PRODUCT DESCRIPTION:** FineLine's MicroFine Green material is an opaque green, ABS-like material. It has been formulated for micro-resolution stereolithography.

**APPLICATIONS:** Custom formulated for use with FineLine's micro-resolution stereolithography process, MicroFine Green enables the production of parts with the finest features and tightest tolerances in the industry. Its green color allows for good part and feature visibility, and its mechanical properties make it a durable choice for small part applications.

**PHYSICAL PROPERTY DATA:** The following mechanical, electrical and thermal property data was gathered from the base material used in the formulation of MicroFine Green material. Properties of the final formulated material may differ from those published below.

## **Mechanical Properties**

ASTM Method	Property Description	Metric	English
D638M	Tensile Modulus	2,100 MPa	305,000 psi
D638M	Tensile Strength at Break	44.9 MPa	6,500 psi
D638M	Elongation to Break	6.1%	6.1%
D790M	Flexural Strength	74.3 MPa	10,770 psi
D790M	Flexural Modulus	2,200 MPa	329,000 psi
D2240	Hardness (Shore D)	85	85
D256A	Izod Impact (Notched)	0.23 J/cm	0.46 ft lb/in
D570-98	Water Absorption	0.7%	0.7%

### KEY PRODUCT BENEFITS

- Custom formulated for micro-sized parts
- Ultra-high accuracy
- ABS-like stiffness



For technical service, please visit us.mfgmachined.com or call us at +86-755-273110957702

# MicroFine Green Resin Product Specifications

### Thermal/Electrical Properties

ASTM Method	Property Description	Metric	English
E831-05	C.T.E. $-40^{\circ}\text{C} - 0^{\circ}\text{C} (-40^{\circ}\text{F} - 32^{\circ}\text{F})$	74.1 μm/m-°C	41.2 μin/in-°F
E831-05	C.T.E. $0^{\circ}$ C $-50^{\circ}$ C $(32^{\circ}$ F $-122^{\circ}$ F)	96.3 μm/m-°C	53.6 μin/in-°F
E831-05	C.T.E. 50°C – 100°C (122°F – 212°F)	141.8 μm/m-°C	78.9 μin/in-°F
E831-05	C.T.E. 100°C – 150°C (212°F – 302°F)	182 μm/m-°C	101.3 μin/in-°F
D150-98	Dielectric Constant 60 Hz	3.16	3.16
D150-98	Dielectric Constant 1 KHz	3.12	3.12
D150-98	Dielectric Constant 1 MHz	2.94	2.94
D149-97a	Dielectric Strength	14.89 kV/mm	378 V/mil
E1545-00	Tg	49°C	120°F
D648	HDT @ 0.46 MPa (66 psi)	59°C	138°F
D648	HDT @ 1.82 MPa (264 psi)	50°C	122°F

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**MicroFine Green** enables the production of parts with the finest features and tightest tolerances in the industry.

#### The Industry Leader in Quality and Value

Since its founding in 2001, FineLine Prototyping has built a reputation as the industry leader in quality, value-added precision parts. Using only state-of-the-art equipment, our talented staff works closely with clients to identify the best possible solutions for their rapid prototyping needs. Our quoting team has the expertise needed to make your project a success no matter what your budget. Each member of our build prep team has completed a rigorous apprenticeship program, giving them the skills required in executing the FineLine System, assuring the smooth operation of our machines. Our finishing team has the experience—and the patience—to achieve your vision for how your SL parts should look. The end result is parts that meet, and often exceed, the expectations of even our most demanding clients.

