

Cosmic Epoxy E4920D

Epoxy; Epoxide
Cosmic Plastics, Inc.

Message:

DESCRIPTION
Cosmic E4920D is a mineral filled epoxy molding compound which is available either in a granular form, or preformed in a variety of sizes and weights.

FEATURES
It has excellent moisture resistance, thermal cycling stability and outstanding moldability. Parts molded from this material do not support fungus growth. It is available in a wide flow range to suit custom molding requirements. E4920D can be supplied in black, gold, green or red. It has a shelf life of eight months when stored at 5°C.

APPLICATIONS
It is designed for encapsulation of passive devices such as capacitors, inductors, diodes and rectifiers.

| General Information | | |
|--------------------------|-----------------------|-------------------|
| Filler / Reinforcement | Mineral | |
| Features | Fungus Resistant | |
| | Good Moldability | |
| | Moisture Resistant | |
| Uses | Electrical Parts | |
| Agency Ratings | ASTM D 5948, Type MEC | |
| | ASTM D 5948, Type MEE | |
| | ASTM D 5948, Type MEG | |
| | ASTM D 5948, Type MEH | |
| | MIL M-14, Type MEC | |
| | MIL M-14, Type MEE | |
| | MIL M-14, Type MEG | |
| | MIL M-14, Type MEH | |
| Appearance | Black | |
| | Gold | |
| | Green | |
| | Red | |
| Forms | Granules | |
| | Preformed Parts | |
| Processing Method | Encapsulating | |
| Physical | Nominal Value | Unit |
| Specific Gravity | 1.85 | g/cm ³ |
| Bulk Factor | 2.0 to 5.0 | |
| Molding Shrinkage - Flow | 0.20 to 0.40 | % |

| | | | |
|---|-------------------------|-----------|-------------|
| Water Absorption ¹ (Equilibrium, 50°C) | 0.25 | % | |
| Hardness | Nominal Value | Unit | |
| Barcol Hardness | 65 | | |
| Mechanical | Nominal Value | Unit | |
| Tensile Strength | 82.7 | MPa | |
| Flexural Modulus | 13800 | MPa | |
| Flexural Strength | 103 | MPa | |
| Compressive Strength | 241 | MPa | |
| Impact | Nominal Value | Unit | |
| Notched Izod Impact | 27 | J/m | |
| Thermal | Nominal Value | Unit | |
| Glass Transition Temperature | 175 | °C | |
| CLTE - Flow | | | |
| -- ² | 2.5E-5 | cm/cm/°C | |
| -- ³ | 7.0E-5 | cm/cm/°C | |
| Thermal Conductivity | 0.67 | W/m/K | |
| Heat Distortion | 260 | °C | |
| Dielectric Breakdown - Wet | 56000 | V | |
| Electrical | Nominal Value | Unit | Test Method |
| Surface Resistivity | 1.0E+15 | ohms | |
| Volume Resistivity | 1.0E+15 | ohms · cm | |
| Dielectric Strength ⁴ (Wet) | 14 | kV/mm | |
| Dielectric Constant ⁵ | | | |
| 1 kHz | 3.90 | | |
| 1 MHz | 4.30 | | |
| Dissipation Factor ⁶ | | | |
| 1 kHz | 0.012 | | |
| 1 MHz | 0.011 | | |
| Arc Resistance | 180 | sec | |
| Flammability | Nominal Value | Unit | Test Method |
| Flame Rating (1.59 mm) | V-0 | | UL 94 |
| Injection | Nominal Value | Unit | |
| Processing (Melt) Temp | 150 to 180 | °C | |
| Injection Pressure | 3.45 to 55.2 | MPa | |
| NOTE | | | |
| 1. | 48 hrs | | |
| 2. | Alpha 1 | | |
| 3. | Alpha 2 | | |
| 4. | Method B (Step-by-Step) | | |
| 5. | Wet | | |
| 6. | Wet | | |

The information and data on this page are provided by manufacturers and document providers. SHANGHAI SUSHENG assumes no legal liability. It is strongly recommended to verify all technical data with material suppliers before final material selection.All rights belong to the original authors. If any infringement occurs, please contact us immediately.

Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519
Phone: +86 13424755533
Email: sales@su-jiao.com
No. 215, Lianhe North Road, Fengxian District, Shanghai, China

