TECHNICAL DATA SHEET

EPIC RESINS
COMPOUNDS AND RESINS FOR INDUSTRY

S7397-03
POTTING COMPOUND

S7397-03 is an epoxy potting compound designed to offer maximum protection for electronics from their operating environment. The key features of Epic's S7397-03 include:

- RoHS Compliant
- 1:1 Mix Ratio by Weight or Volume
- UL 94V-0 @ 3.2 mm
- Long Pot Life
- Medium Viscosity
- High Durometer
- Thermally Conductive
- Non-blush Surface Finish

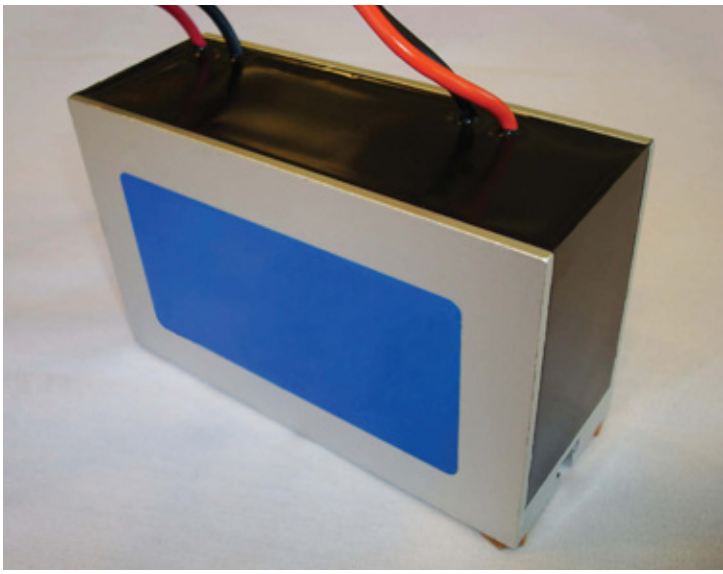
The S7397-03 material is an excellent candidate for potting applications that require a long work life, material flowability and a high durometer.

Epic S7397-03 is used in applications such as:

- Battery Chargers
- Lighting Ballasts
- Sensors
- Control Modules
- Power Supplies

In addition to the key features of S7397-03, Epic Resins offers distinct advantages over our competitors:

- ISO 9001 and 14001 Recognized Management System
- Extensive Customer Support
- New Product Development
- Product Customization
- Application Property Testing
- Local Field Technical Service – No Need to Work Through Distributors



UL File Number E55516 Plastics Component
Flammability (UL): Recognized UL 94 V-0 @ 3.2 mm

GENERAL PROPERTIES

Identification	Potting Compound/Epoxy
Component Count	2
Color Part A	Black
Color Part B	Opaque
Color Mixed	Black/Gray
Shelf Life @ 25˚C	12 Months

MATERIAL PROPERTIES

Mix Ratio by Weight	100:100
Mix Ratio by Volume	1:1
Viscosity @ 25˚C	Part A: 20 RPM : 11,000 – 18,000 cps Part B: 20 RPM : 6,000 – 10,000 cps Mixed: 20 RPM : 7,000 – 9,000 cps
Weight Per Gallon	Part A: 13.25 – 13.45 lb/gal Part B: 13.70 – 13.95 lb/gal Mixed: 13.47 – 13.70 lb/gal

MIXED PROPERTIES

Gel Time (ASTM D3056, 200 Grams)	200 – 300 minutes @ 25˚C
Cure Schedule, Hours	48 – 50 hours @ 25˚C
Alternate Cure, Hours	4 – 5 hours @ 65˚C

CURED PROPERTIES

Weight Change	0.39% after 24 hours @ 130˚C 0.91% after 168 hours @ 130˚C
Hardness (ASTM D2240)	70 – 72 Shore D
Tg (ASTM E1545, Glass Transition)	24 – 28˚C
Coeff Therm Exp. (ASTM E831)	100 (EXP-6) cm/cm ˚C (from 20˚C to 40˚C)

Thermal Conductivity (ET-164)

BTU	7.2 – 7.4 BTU in/hr ft2 ˚F
Cal Cm	24.8 – 25.3 (EXP-4) Cal Cm/ Sec Cm2 ˚C
W/mK	1.04 – 1.06 W/mK

Lap Shear (ASTM D1002)	1500 – 1600 psi
Tensile Strength (ASTM D638)	800 – 900 psi
Water Absorption (ASTM D570)	1.03% @ 25˚C after 24 hours 3.31% @ 25˚C after 168 hours

ELECTRICAL PROPERTIES

Dielectric Constant (ASTM D150)

3.98 – 4.30	1 kHz	116 mils
3.64 – 3.99	100 kHz	116 mils

Dissipation Factor (ASTM D150)

0.037 – 0.041	1 kHz	116 mils
0.023 – 0.026	100 kHz	116 mils

Dielectric Strength (ASTM D149)	> 435 Volts/mil @ 116 mils
Volume Resistivity (ASTM D257)	1.21e+13 – 1.33e+13 ohm cm @ 116 mils
Surface Resistivity (ASTM D257)	3.00e+15 – 4.00e+15 ohms @ 116 mils

MIXING INSTRUCTIONS

Pre-mixing insures each component's fillers are dispersed completely. When mixing two component epoxy resins, the ideal method is to mix by weight using a balance or digital scale. The mixing container should be placed on the scale and set to read zero, the appropriate amount of resin should be weighed, followed by the appropriate amount of hardener. The material should then be stirred, ideally with a metal spatula, ensuring that the material is thoroughly mixed to a homogenous state by scraping the sides, bottom and the area where the sides meet the bottom of the container. Failure to do so can result in uncured sections of material or altered properties of the cured material. When mixing epoxy resins it is important to keep in mind that the larger the quantity of material mixed, the shorter the pot life (working time) will be.

STORAGE AND HANDLING

Please refer to the Material Safety Data Sheet when determining the proper precautions to be used when storing or handling Epic S7397-03. Most epoxy resins and hardeners are skin and eye irritants. Some epoxy hardeners may actually be corrosive to the skin and eyes. Other health problems may be aggravated by exposure to these materials. Epic Resins recommends that engineering controls be used to minimize employee exposure to this or any other industrial chemical.

EPIC RESINS

600 Industrial Blvd | Palmyra, WI 53156 | Toll Free: (800) 242-6649 | Phone: (262) 495-3400 | Fax: (262) 495-3410
Website: www.epicresins.com | E-mail: sales@epicresins.com