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TOP

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EPIC RESINS

Polymers for Industry.



BATTERY Potting & Encapsulating Compounds



S7527

Thermally Stable Potting and Encapsulating Compound

Epic S7527 is a two component polyurethane potting compound formulated for applications requiring thermal stability at high temperatures. It carries a UL 94 V-0 flame rating and a 150°C RTI rating per UL 746. This compound is excellent for potting and encapsulating sensitive electronics that will be exposed to harsh environments.

PROPERTIES

Hardness, Shore A	88 - 92
Thermal Conductivity	0.77 - 0.79 W/mK
Dielectric Strength	14.5 kV/mm

FEATURES

- ◆ UL 94 V-0 flame rating
- ◆ RTI rating of 150°C
- ◆ Low mixed viscosity for superior flow into tight tolerance areas
- ◆ Low weight loss at elevated temperatures
- ◆ Outstanding adhesion to various metal and plastic substrates

COMMON APPLICATIONS

- ◆ Outdoor LED displays
- ◆ Universal reader for security systems
- ◆ Radio frequency transmitting devices
- ◆ Sensor and control module potting
- ◆ Power supplies, energy storage devices and battery packs
- ◆ Automotive applications



S7475

Electronic Control Module Encapsulating Compound

Epic S7475 is a two component polyurethane compound for potting electronic control modules (ECMs) and a wide variety of electronic devices. The low mixed viscosity allows the material to flow into intricate areas under printed circuit boards and other tight tolerance areas. A 4:1 by volume mix ratio allows the system to be very adaptable for meter mix and dispense processing. The very low hardness in combination with the low glass transition provides excellent flexibility, therefore allowing delicate surface mounted devices to expand and contract during thermal cycling and thermal shock.

PROPERTIES

Hardness, Shore OO	50 - 65
Glass Transition (Tg)	(-56) - (-54) °C
Thermal Conductivity	0.329 - 0.333 W/mK

FEATURES

- ◆ UL 94 V-0 recognition
- ◆ Low mixed viscosity for absolute penetration
- ◆ Easy to use volumetric mix ratio
- ◆ Low weight loss at elevated temperatures
- ◆ Flexibility over a wide temperature range

COMMON APPLICATIONS

- ◆ Micro-inverters & solar controllers
- ◆ Keypads & I/O modules
- ◆ Remote devices for IoT



RM2018

Flame Retardant Encapsulant for Sensitive Electronic Applications

Epic RM2018 is a two component polyurethane potting and encapsulating compound that carries a UL 94 V-0 flammability rating. It is designed for potting DC/DC converters, GPS sensors and other electronic devices that require flexibility over a wide temperature range. Features also include a convenient 4:1 volumetric mix ratio, low glass transition and excellent electrical stability over various frequencies.

PROPERTIES

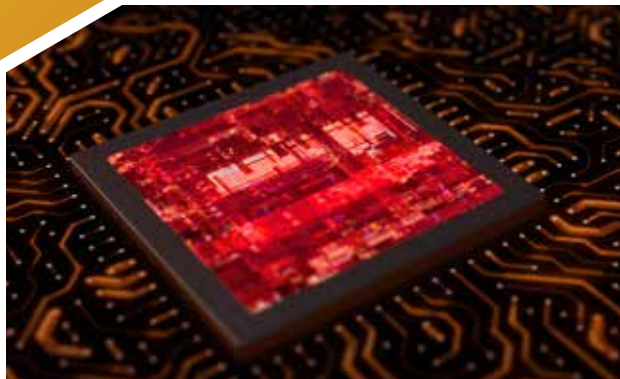
Viscosity, Mixed @ 25 °C, 20 rpm	2,500 - 3,000 cps
Hardness, Shore A @ 25 °C	53 - 57
Glass Transition (Tg)	(-50) - (-47) °C
Thermal Conductivity	0.63 - 0.64 W/mK

FEATURES

- ◆ UL 94 V-0 recognition
- ◆ Outstanding low temperature performance
- ◆ Thermally conductive
- ◆ Low mixed viscosity for total penetration

COMMON APPLICATIONS

- ◆ DC/DC converters
- ◆ GPS asset tracking devices
- ◆ Ignition control modules
- ◆ Power tool control modules



S7593

Thermally Conductive Self-Leveling Encapsulant

Epic S7593 is a two component polyurethane self-leveling encapsulant. It is designed to have a high thermal conductivity, UL 94 V-0 at 0.5" and a long pot life for ease of manufacturing.

Note: The S7593 will require unique process and mixing equipment for use.

PROPERTIES

Hardness, Shore A	55 - 70
Glass Transition (Tg)	Less than -50 °C
Thermal Conductivity	3 - 3.2 W/mK

FEATURES

- ◆ Outstanding thermal conductivity
- ◆ Used over a wide temperature range

COMMON APPLICATIONS

- ◆ Gap filler
- ◆ Heat dissipation applications



S7594

Thermally Conductive Polyurethane with Long Gel Time

Epic S7594 is a two component polyurethane potting compound designed with a very high thermal conductivity and combined with a long gel time. It has been formulated to meet a UL 94 V-0 flame rating at a thickness of 12.5 mm in screening tests.

PROPERTIES

Hardness, Shore A	65 - 70
Glass Transition (Tg)	(-50) - (-45) °C
Thermal Conductivity	2 - 2.2 W/mK

FEATURES

- ◆ Designed to pass UL 94 V-0
- ◆ High thermal conductivity
- ◆ Used over a wide temperature range

COMMON APPLICATIONS

- ◆ Gap filler
- ◆ Heat dissipation applications