THERMOSET® EP-937 BOARD LEVEL ENCAPSULANT

Technical Data Sheet

Thermoset® EP-937 encapsulant is a black, one-component epoxy specifically designed to meet the needs of coating semiconductor devices on printed circuit boards.

Features and Benefits

Convenient: requires no mixing; provides excellent shelf life stability; prepared under vacuum and contains no entrapped air or solvents.

Environmentally Resistant: provides excellent resistance to thermal shock and moisture.

Fast Cure: quickly cures at 150°C with a void-free, smooth surface.

Outstanding Adhesion: offers a fast elevated temperature cure for outstanding adhesion to a variety of materials.

Application

Applying: Before use with dispensing equipment, allow encapsulant to be warmed to room temperature (ideally 20-25°C). Thaw encapsulant by placing the syringe in a vertical (upright) position with dispense tip facing downward in an ambient environment. Consult handling instructions† for specific guidelines.

Apply encapsulant by pneumatic-powered syringe or by coating with a disposable applicator. Do not use for coating masses larger than 25 grams.

†Handling instructions are available on parker.com.

Typical Properties*

Uncured	
Appearance	Black Paste
Viscosity, cP @ 25°C Spindle 6, 10 rpm	47,900
Specific Gravity	1.49
Gel Time, minutes @ 150°C	3
Working Life, months @ 25°C	1
Cured**	
Coefficient of Linear Thermal Expansion, ppm/°C below Tg, by TMA	45
Glass Transition Temperature, °C by TMA	125
Hardness Shore D	88 - 94
Modulus of Elasticity, GPa by DMA	1
Volume Resistivity, ohm-cm @ 25°C	1×10^{15}
Dielectric Constant 1 MHz, ASTM D 150	4.0
Dissipation Factor 1 MHz, ASTM D 150	0.01

*Data is typical and not to be used for specification purposes.

**Data obtained by using a cure schedule of one hour at 150°C. Choice of cure schedule will vary with the application; user must establish optimum cure schedule.

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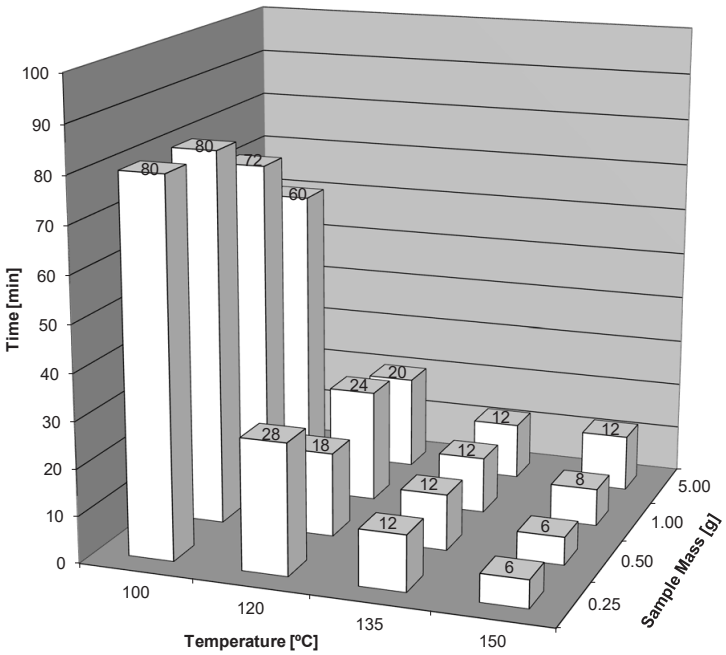
Curing: Allow encapsulant to cure in an elevated temperature circulating air oven or on a hot plate.

Cleanup: Disposable containers and utensils are recommended when working with epoxies. However, when disposable materials are impractical, uncured encapsulant can be removed by cleaning equipment with solvent. Solvent-cleaned utensils should be thoroughly dried before reuse; any remaining solvent can contaminate the next mixture.

Cure Time for Thermoset EP-937 Encapsulant



Shelf Life/Storage

Shelf life is six months when stored between 0° and 5°C in original, unopened container. Do not store containers outdoors or in non-ventilated exterior structures. Store product away from heat sources such as ovens or hot plates. Elevated storage temperatures will shorten product's shelf life.

Cautionary Information

Before using this or any Parker Lord product, refer to the Safety Data Sheet (SDS) and label for safe use and handling instructions.

Verify Volatile Organic Compounds (VOC) requirements with the applicable local, regional and state air quality authorities before importing, selling or using this product. VOC rules, thresholds and reporting obligations vary by jurisdiction; compliance is the responsibility of the importer/seller/owner.

For industrial/commercial use only. Must be applied by trained personnel only. Not to be used in household applications. Not for consumer use.

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