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Innovative Chemistry For High-Tech Applications

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***EP-837***  
***TWO PART STAKING/ENCAPSULATING***  
***EPOXY ADHESIVE***

EP-837 is a unique, two part epoxy adhesive used for component attachment, termination, staking, potting and other applications in hybrid circuits, membrane keypads and other electromechanical assemblies where low temperature curing conditions are required. EP-837 is suitable for dot dispense or stencil applications, and exhibits excellent adhesion to most metal and plastic substrates. EP-837 also has excellent temperature resistance, toughness and allows for differences in coefficients of thermal expansion between two bonded substrates. Lateral component push-off testing on print treated polyester substrates (PET) show that EP-837 has 30 to 40% greater bond strength than other conductive epoxy adhesives. Convenient mix ratios and packaging in pre-weighed amounts allow for ease of use in fast paced production environments. EP-837 is also available in two-sided, pre-weighed and sealed plastic pouches. Conductive Compounds, Inc. can modify the cure speed, working time or rheology of EP-837 to make it more compatible with your unique manufacturing process.

EP-837 is compatible with all of our silver conductive inks, UV curable encapsulants, dielectrics and conformal coatings. Contact us for suitability of use with other materials.

***TYPICAL PROPERTIES***

Appearance	Part 'A'	Clear or Green Thick Liquid
	Part 'B'	Straw Colored Liquid
Mix Ratio		100 Parts 'A' (By Weight) To 55 Parts 'B'
Shelf Life (Unmixed)		6 Months in Unopened Container
Pot Life (25 Grams, Room Temperature)		> 4 Hours
Thin Film Set Time (.001" @ 25° C)		>12 Hours
Total % NV Solids		100%
Hegman Gage		<10 μ
Volume Resistivity (ref. ASTM D-257)		1.0 x 10 <sup>14</sup> Ω-cm
Operating Temperature Range		-55° C To +125° C Continuous
(Fully Cured)		Intermittent at higher temperatures

<u>Curing Schedule (Time at Temperature)</u>	<u>90% Cure</u>	<u>Complete Cure</u>
20° C	48 hours	72 hours +
140° C	10-20 minutes	30-40 minutes

**At 90% cure, the assembly can generally be handled carefully without the danger of damaging the adhesive bond. Adhesive will continue to cure at room temperature after removal from the oven. Cure times above are intended as guidelines and are dependent on the actual glue line being held at the given temperature. Curing at room temperature only is not recommended. Heat curing gives increased bond strength.**

**MORE INFORMATION ON REVERSE SIDE**

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**APPLICATION GUIDELINES**

Dot dispensing can be accomplished utilizing positive displacement or pneumatic actuated equipment. EP-837 exhibits quick break-off after dispensing, and will not cause shorts from stringing in high-speed automated production processes. In small volume production environments, EP-837 can be mixed and manually loaded into syringes for dispensing with hand held equipment.

The rheological properties of EP-837 allow for accurate and repeatable dispense geometries over a four hour window. While the viscosity of the mixed material will change over four hours, most dot dispense equipment can easily compensate for the rheological changes to accurately maintain dot configuration.

**PACKAGING**

EP-837 is available in pre-weighed bulk containers with any specified amount of material. Pre-weighed plastic pouches (CC-Packs) are convenient for mixing and take the work out of measuring.

The above guidelines are intended to provide a starting point for evaluation. We are also available to provide technical assistance to resolve your processing issues. Call us to discuss your application in more detail.

***NOTE: Although the above properties are accurate to the best of our knowledge, Conductive Compounds, Inc. makes no guarantees for customer specifications established in applications where this product is used. Customer assumes responsibility for determining fitness of use in their particular application.***