

## **ERA-106** **HIGH IMPACT, LOW VISCOSITY EPOXY ADHESIVE**

**ERA-106** is an undiluted, unfilled, low viscosity, clear epoxy adhesive that exhibits exceptional resistance to impact and thermal shock. It can be used as a high bond strength adhesive for most similar and dissimilar substrates, for making in-place laminates or as a protective coating on metals etc. This adhesive will form a semi-rigid, moisture proof, gas tight seal between plastic and metallic or other materials. It is also recommended for potting devices such as connector shells from which rigid or flexible wires may protrude directly through the epoxy.

### **TYPICAL HANDLING PROPERTIES:**

Resin	ERA-106A
Hardener	ERA-106B
Mix ratio by weight, phr	30
Mixed Viscosity at 25°C, cp	300
Pot Life at 25°C (200 grams), mins	30
<b>Recommended Cure Schedule</b>	<b>3 hrs at 65°C</b>
<b>Alternate Cure Schedule</b>	<b>48 hrs at 25°C</b>

### **TYPICAL CURED PROPERTIES AFTER RECOMMENDED CURE:**

Color	Amber
Specific Gravity	1.17
Hardness, Shore D	80
Water Absorption (24 hour immersion) at 25°C, %	0.17
Lap Shear Strength to Aluminum at 25°C, psi	2700
Linear Shrinkage, %	0.27
Flexural Strength at 25°C, psi	13,500
Flexural Modulus ( yield) at 25°C, psi	3.2x10 <sup>5</sup>
Service Temperature range	-55°C to 90°C
Glass Transition Temperature, °C	65
Coefficient of Linear Thermal Expansion, 10 <sup>-6</sup> /°C from -60°C to 25°C	59
Dielectric Strength, volts/mil	450
Dielectric Constant at 1 kHz and 25°C	4.14
Dissipation Factor at 1 kHz and 25°C	0.012
Volume Resistivity at 25°C, ohm-cm	8x10 <sup>14</sup>

### **INSTRUCTIONS FOR USE:**

At room temperature, mix 100 grams of ERA-106A with 30 grams of ERA-106B and vacuum degas. Apply to clean bonding surfaces and cure as recommended to achieve the desired properties. Typical cured properties were determined using the recommended cure schedule. Some difference in properties may occur with the alternate or other cure schedules. Do not mix more than a 200 gram mass or apply heat prior to gelation of the adhesive as this may cause a violent exothermic reaction with the evolution of fumes and smoke.

### **FOR INDUSTRIAL USE ONLY:**

These materials are intended for industrial use only, and the practices of good housekeeping, safety and cleanliness should be followed before, during and after use.

### **WARNING!!**

Although the system contains low volatility materials, care should be taken in handling. Adequate ventilation of the work place and ovens is essential. These materials may cause injury to the skin following prolonged or repeated contact and dermatitis in susceptible individuals. In case of skin contact, wash thoroughly with soap and water. For eyes, flush immediately with plenty of water for at least 10 minutes and seek medical attention. Refer to the Material Safety Data Sheet for additional health and safety information.

### **SHELF LIFE:**

The shelf life of these materials is greater than two years when stored in unopened containers at an average temperature of 25°C.