EASTERN RESINS CORP.
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TECHNICAL BULLETIN

ERA-110
HIGH STRENGTH, LOW VISCOSITY EPOXY ADHESIVE

ERA-110 is a low viscosity, clear epoxy resin system for use as an adhesive or a potting material. It has a long pot life at room temperature, good resistance to mechanical shock and has high strength after heat curing. It offers unique wetting ability that results in a tenacious bond to a wide range of difficult to bond substrates including natural and synthetic rubbers, plated metals, etched nylon, glass, wood, ceramics etc.

TYPICAL HANDLING PROPERTIES:

Resin	ERA-110A
Hardener	ERA-110B
Mix ratio by weight, phr	150
Pot Life at 25°C (100grams), hours	2
Recommended Cure Schedule	**2 hrs at 100°C**
Alternate Cure Schedule	**48 hrs at 25°C**

TYPICAL CURED PROPERTIES AFTER RECOMMENED CURE:

Color	Amber
Specific Gravity	1.1
Hardness, Shore D	65
Lap Shear Strength to Aluminum, psi	
@ –55°C	2250
@ 25°C	2250
@ 100°C	225
Coefficient of Linear Thermal Expansion, 10^{-6}/°C from –55°C to 25°C	135
Service Temperature range	-55°C to 90°C
Dielectric Strength, volts/mil (3 mm thick sample)	410
Dielectric Constant at 1 kHz and 25°C	3.8
Dissipation Factor at 1 kHz and 25°C	0.06
Volume Resistivity at 25°C, ohm-cm	$5x10^{14}$

INSTRUCTIONS FOR USE:

At room temperature, mix 100 grams of ERA-110A with 150 grams of ERA-110B and vacuum degas. 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.

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^{o}C.