

ERA-114
HIGH STRENGTH, LOW VISCOSITY EPOXY ADHESIVE

ERA-114 is a clear epoxy resin system for use as an adhesive or potting material. It has a long pot life at room temperature, good resistance to mechanical shock and has high strength after heat curing. It has high peel strength, excellent tensile strength, outstanding thermal shock, impact and vibration resistance. This high performance epoxy adhesive exhibits outstanding physical, thermal and electrical insulation properties. It can be used to bond glass, metal, wood and some plastics such as nylon, PVC, ABS, etc.

TYPICAL HANDLING PROPERTIES:

| | |
|-------------------------------------|-----------------------|
| Resin | ERA-114A |
| Hardener | ERA-114B |
| Mix ratio by weight, phr | 100 |
| Mixed Viscosity at 25° C, cp | 15,000 |
| Pot Life at 25°C (100 grams), hours | 2 |
| Recommended Cure Schedule | 2 hrs at 100°C |
| Alternate Cure Schedule | 48 hrs at 25°C |

TYPICAL CURED PROPERTIES AFTER RECOMMENDED CURE:

| | |
|---|--------------------|
| Color | Amber |
| Specific Gravity | 1.1 |
| Hardness, Shore D | 82 |
| Lap Shear Strength to Aluminum at 25°C, psi | 3500 |
| Coefficient of Linear Thermal Expansion, 10 ⁻⁶ /°C | |
| from -55°C to 25°C | 68 |
| from 25°C to 60°C | 95 |
| Service Temperature range | -55°C to 120°C |
| Glass Transition Temperature, °C | 70 |
| Dielectric Strength, volts/mil (3 mm thick sample) | 410 |
| Dielectric Constant at 1 kHz and 25°C | 2.92 |
| Dissipation Factor at 1 kHz and 25°C | 0.006 |
| Volume Resistivity at 25°C, ohm-cm | 2x10 ¹⁶ |

INSTRUCTIONS FOR USE:

At room temperature, mix 100 grams of ERA-114A with 100 grams of ERA-114B 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°C.