

ERP-506

HIGH PERFORMANCE EPOXY POTTING COMPOUND

ERP-506 is a highly filled epoxy system with superior flow and wet out properties. Its low shrinkage and good thermal shock properties minimize the stress on potted components. **ERP-506** is recommended for potting and casting applications of up to 300 grams mass. It has an inherently high degree of resistance to flame propagation without the use of any noxious additives. This material is typically used in low power devices, operational and data amplifiers, analog/digital converters, multipliers, voltage regulators, transformers, etc.

TYPICAL HANDLING PROPERTIES:

Resin	ERP-506A
Hardener	ERP-506B
Mix ratio by weight, phr	7
Mixed viscosity at 25°C, cp	6000
Pot life (100 grams) at 25°C, hrs	2
Recommended Cure Schedule	3 hrs at 25°C + 2 hrs at 120°C
Alternated Cure Schedule	48 hrs at 25°C

TYPICAL CURED PROPERTIES AFTER RECOMMENDED CURE:

Color	Black
Specific Gravity	1.68
Hardness, Shore D	86
Linear Shrinkage (%)	0.002
Water Absorption (24 hr immersion at 25°C), (%)	0.04
Service Temperature range	-40°C to 105°C
Glass Transition Temperature, °C	95
Coefficient of Linear Thermal Expansion, 10 ⁻⁶ /°C	
from -55°C to 25°C	34
from 25°C to 95°C	61
Flexural Strength at 25°C, psi	10,000
Flexural Modulus at 25°C, psi	1.1x10 ⁶
Dielectric Constant at 1 kHz and 25°C	4.3
Dissipation Factor at 1 kHz and 25°C	0.008
Volume Resistivity at 25°C, ohm-cm	1.0x10 ¹⁶

INSTRUCTIONS FOR USE:

The individual components containing fillers should be mixed or agitated without introducing excessive air before use to ensure that all fillers are properly dispersed. To obtain the best cured properties, accurate proportioning and thorough mixing are essential.

Mix the contents thoroughly each time before removing material. To each 100 grams of ERP-506A, add 7 grams of ERP-506B and mix it well preferably using a mechanical mixer. Vacuum degas for five minutes to remove dissolved and entrapped air. Proceed with the casting or potting application and cure as recommended.

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.