



TECHNICAL INFORMATION

(Provisional)

EPOCAP® 14530A/2404B Epoxy Encapsulating System

PRODUCT DESCRIPTION

EPOCAP® 14530A/2404B is a filled, medium viscosity, two-component system. This general purpose, room temperature cured potting and encapsulating compound exhibits good electrical properties and good thermal conductivity. It is recommended for the potting of transformers, coils, resistors and other electrical/electronic components.

HOW TO USE

The individual components containing fillers should be stirred 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.

MIXING AND CURING SCHEDULE

Ratio	Part A	Part B
By weight	100	6
By volume	100	10

The cure schedule is dependent upon the temperature. The recommended cure schedule will vary with the desired properties. The recommended schedule to achieve the typical properties is shown below:

24 hours at 25 °C (77 °F)

TYPICAL UNCURED PROPERTIES

	Part A	Part B	Mixed
Color	Black	Clear	Black
Viscosity @ 25 °C, cps	25,000	35	5,200
Weight per Gallon, lbs	13.6	8.15	13.1
Specific Gravity @ 25 °C	1.63	0.98	1.57
Gel Time, minutes			
200 gm mass @ 25 °C	---	---	45
Peak Exotherm, °C			
200 gm mass @ 25 °C	---	---	115
Flash Point (P.M.), °C	74	143	---
	(165 °F)	(289 °F)	
Filler Type	Abrasive	None	Abrasive
Shelf Life (in separate sealed containers), months	12	12	---

TYPICAL CURED PROPERTIES

(Tested at 25 °C unless otherwise indicated)

Test	Result
Hardness, Shore D	95
Tensile Strength, psi	8,850
Compressive Strength @ yield, psi	8,450

Linear Shrinkage, In./In.	0.004
Flexural Strength, psi	11,400
Modulus, psi	968,800
Water Absorption, % Weight Gain after: 7 days	0.1

TYPICAL ELECTRICAL PROPERTIES

Dielectric Constant	100Hz	100kHz
Test Temperature, °C		
25	4.7	4.2
105	5.9	4.8

Dissipation Factor	100Hz	100kHz
Test Temperature, °C		
25	0.03	0.027
105	0.232	0.02

Volume Resistivity, ohm-cm

Test Temperature, °C	
25	6×10^{14}
105	4.6×10^{11}

TYPICAL THERMAL PROPERTIES

Test	Result
Heat Distortion Temperature, °C	84
Coefficient of Linear Thermal Expansion, in./in./°C (+30 to 90 °C)	67.7×10^{-6}
Thermal Conductivity, cal x cm/sec x cm ² x °C	7.25×10^{-4}

STORAGE AND HANDLING

These materials should be stored in a dry environment within a temperature range of 16 °C to 27 °C (60 °F to 80 °F). Extremes of temperature beyond this range may result in crystallization or polymerization of the materials. Introduction of a nitrogen blanket into the containers before closing will improve the storage life of the products.

A wide variety of cleaning solutions are available for cured and uncured epoxies and polyurethanes. For more information on proper recommendations and procedures, contact the Technical Department.

SAFETY

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.

Although the system contains low volatility materials,

nevertheless, care should be taken in handling. Adequate ventilation of work place and ovens is essential.

These materials may cause dermatitis in susceptible individuals. Keep off skin and out of eyes. In case of accidental skin contact, wash thoroughly with soap and water. In case of eye contact, flush eyes thoroughly with water and consult a physician immediately.

Refer to Material Safety Data Sheet for additional information.

ADDITIONAL INFORMATION

Visit our web site at:

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NOTE

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