



TECHNICAL INFORMATION

EPOCAP® 25380 Epoxy Encapsulation System

PRODUCT DESCRIPTION

EPOCAP 25380 is a room temperature cure, two-component, general purpose potting compound developed for low voltage applications such as ballasts, starters and mercury switches. It has a convenient mix ratio, extremely low exotherm and shrinkage. This semi-rigid system has excellent thermal shock resistance and a long work life.

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. To obtain void free castings, the mixed system should be degassed under vacuum at approximately 29 inches of mercury (or better) for a few minutes, both immediately after mixing and then again after castings are poured, if the work life of the system allows.

MIXING AND CURING SCHEDULE

Ratio	Part A	Part B
By Weight	100	89
By Volume	100	100

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:

7 days at 25 °C (77 °F) or 2 hours at 49 °C (120 °F)

TYPICAL UNCURED PROPERTIES

	Part A	Part B	Mixed
Color	Blue	Yellow	Green
Viscosity @ 25 °C, cps	14,000	10,000	12,000
Weight per Gallon, lbs.	13.4	12.04	12.72
Specific Gravity @ 25 °C	1.61	1.44	1.52
Gel time, minutes			
100 gm mass @ 25 °C	---	---	180
25 gm mass @ 49 °C	---	---	45
Filler Type	Non-Abrasive	Non-Abrasive	Non-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	60
Tensile Strength, psi	1,800
Tensile Modulus, psi	88,000
Elongation, %	19
Compressive Strength, psi	6,195
Compressive Modulus, psi	39,000
Linear Shrinkage, in./in.	0.0008
Water Absorption, % Weight Gain After:	
24 hours immersion	0.14
7 days immersion	0.51
Peak Exotherm @ 38 °C, 100 gm mass, °C	55

TYPICAL THERMAL PROPERTIES

Test	Result
Heat Distortion Temperature, °C	< 25
Coefficient of Linear Thermal Expansion, in./in./ °C (+30 to 90 °C)	127 x 10 ⁻⁶
UL Flame Retardancy Test: UL-94-VO @ 0.250"	Passes
Recommended Service Temperature	105 °C

TYPICAL ELECTRICAL PROPERTIES

Volume Resistivity, ohm-cm	Test Temperature, °C	Result
	25	1.38 x 10 ¹²

Dielectric Strength, Volts/mil 430

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 Sheets for additional information.

ADDITIONAL INFORMATION

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