



CC3-465

LIGHT WEIGHT EPOXY POTTING COMPOUND

CC3-465 resin was developed for the semiconductor industry as a light weight, low dielectric constant epoxy potting compound. Its low viscosity and good wetting properties enable densely packaged circuitry to be totally encapsulated, void free without the aid of a vacuum in most cases. The hollow glass microspheres increase its structural strength and electrical insulation while reducing shrinkage and thermal conductivity.

CC3-465 is easy to use and is readily adaptable to automatic machine dispensing. It cures at room temperature or with heat and meets most military and UL flame retardant requirements.

SPECIFICATIONS:

Uncured

Specific Gravity at 25° C	0.77
Standard Color	Black
Shelf Life: (months)	12

Physical Properties

Tensile Strength @ 25° C, psi	4,545
Tensile Elongation: % @ yield	2.0 to 3.0
Compressive Strength @ 25° C, psi	10,300
Izod Impact: ft lbs/in of notch	0.21
Heat Distortion: °C	130
Water Absorption: %, 7 days @ 25° C	0.25
Linear Shrinkage: in/in	0.005
Service Temperature, °C, continuous	-65 to +130
Service Temperature, °C, intermittent	-100 to +200
Hardness: Shore D	75 to 80

Thermal Properties

Thermal Conductivity: w/mK	0.15
Thermal Resistance	248
Coefficient of Thermal Expansion: in/in/°C x 10 ⁻⁶	39

Electrical Properties

Volume Resistivity @ 25° C, ohm-cm	10 ¹⁴
Dielectric Constant @ 25° C, 100 KC	1.9
Dissipation Factor @ 25° C, 100 KC	0.003
Dielectric Strength, volts/mil	300 to 500



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MIXING INSTRUCTIONS:

Stir CC3-465 in its shipping container to insure dispersion of filler. The use of power mixing equipment is recommended only if used at low speed to avoid breaking the glass bubble filler. Weigh out the desired amount of resin in a clean container. Add 22.5 parts of H-18 Hardener per 100 parts of CC3-465 by weight. (ie. 22.5 grams of H-18 Hardener and 100 grams of CC3-465 for a total mix of 122.5 grams) Mix thoroughly. Vacuum can be used to remove entrapped air prior to pouring. Use in a well ventilated area and avoid contact with eyes and skin.

CURE SCHEDULE:

When curing more than 100 grams of concentrated mass, allow to cure at room temperature. Quantities of less than 100 grams can be cured more rapidly with heat up to 150° C.

Each application is different. It is advisable to run a sample through an oven at the temperature of your choice. Check to see how long it takes to harden and be sure the resin did not boil or exotherm before it cured.

* The data herein is offered as a guide and does not constitute a specification. Cast Coat, Inc. makes no warranty express or implied as to the accuracy or completeness. Each user should evaluate the material to determine its suitability for his/her particular purpose. User assumes all risk and liability resulting from its use.