



## CC3-402A-1

### General Purpose, Thermally Conductive UL-94V-0, Fire Retardant, Potting Resin

CC3-402A-1 is a general purpose, fire retardant epoxy potting resin exhibiting low abrasion resistance. It is designed to be used where low viscosity and good wetting-out properties are important. Low shrinkage and good thermal shock resistance minimize stress on potted components. A choice of hardeners enable the CC3-402A-1 to be cured either at room temperature or with heat. Even though the entire CC3-402A-1 series offers a low percent of filler separation, it is advisable to always mix the contents in the shipping container prior to use.

#### ELECTRICAL AND PHYSICAL PROPERTIES:

Specific Gravity at 25° C	1.5
Thermal Conductivity: W/mK	1.12
Tensile Strength @ 25° C, psi	9,840
Compressive Strength @ 25° C, psi	41,000
Izod Impact: ft lbs/in of notch	0.32
Coefficient of Thermal Expansion: in/in/°C x 10 <sup>-6</sup>	31
Heat Distortion: °C	115
Water Absorption: %, 7 days @ 25° C	0.04
Volume Resistivity @ 25° C, ohm-cm	10 <sup>16</sup>
Glass Transition Temperature: (T <sub>g</sub> , °C)	125
Dielectric Constant @ 25° C, 100 KC	4.2
Dissipation Factor @ 25° C, 100 KC	0.02
Dielectric Strength, volts/mil	500
Linear Shrinkage: in/in	0.003
Service Temperature, °C continuous	-55 to +130

( Typical properties when cured with H-16 Hardener )

#### CHOICE OF HARDENERS:

H-1 Hardener:	Rigid, good dimensional stability, fast cure.
H-18 Hardener:	Resilient, excellent mechanical and thermal shock, low viscosity, good air release, fast cure.
H-16 Hardener:	Rigid, good low temperature and high humidity application, fast cure.
H-10LV Hardener:	Variable hardness, excellent impact properties, long pot life



## CC3-402A-1

HARDENER	PARTS BY WEIGHT PER 100 PARTS OF RESIN		POT LIFE	CURE TIME	CURE TIME	CURE TIME
			100 GRAM 25°C (77°F)	25° C (77°F)	65° C (149° F)	125° C (257° F)
H-1 Hardener	7.0		1 hr.	24 hrs.	2 hrs.	---
H-18 Hardener	14.5		2 hrs.	24 hrs.	2 hrs.	---
H-16 Hardener	11.0		26 min.	1 hr.	30 min.	10 min.
H-10LV Hardener	rigid	20	3 hrs.	24 hrs.	3 hrs.	---
H-10LV Hardener	semi-flex	43	3 hrs.	24 hrs.	3 hrs.	---
H-10LV Hardener	flexible	65	3 hrs.	24 hrs.	3 hrs.	---

### ROOM TEMPERATURE CURE:

- H-1 Hardener: Cures overnight at room temperature or 2 hrs at 65° C.  
Do not heat cure if the mass exceeds 200 grams.
- H-18 Hardener: Cures overnight at room temperature or 2 hrs at 65° C.  
Do not heat cure if the mass exceeds 200 grams.
- H-16 Hardener: Cures within 1 hour at room temperature or 30 minutes at 65° C.  
Do not heat cure if mass exceeds 100 grams.
- H-10LV Hardener: Cures overnight at room temperature or 3 hrs at 65° C.  
Do not heat cure if the mass exceeds 300 grams.

### MIXING INSTRUCTIONS:

Mix CC3-402A-1 thoroughly in it's shipping container to insure a uniform consistency. Weigh out the desired amount of resin in a clean container. Add the hardener accurately by weight in the proper proportion as specified above. (ie. 7.0 grams of H-1 Hardener and 100 grams of CC3-402A-1 for a total mix of 107.0 grams) Mix thoroughly. Use in a well ventilated area and avoid contact with eyes and skin.

\* 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.