CC3-402A

General Purpose, Thermally Conductive

UL-94V-0, Fire Retardant, Potting Resin

CC3-402A 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 to be cured either at room temperature or with heat. Even though the entire CC3-402A 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: (uncatalyzed) 1.5 (catalyzed) 1.4
- Viscosity cps at 22 ½° C: (uncatalyzed) 4-10-200 (catalyzed) 4-20-100
- Thermal Conductivity: W/mK 1.12
- Tensile Strength @ 25° C, psi 7,200
- Compressive Strength @ 25° C, psi 22,700
- Izod Impact: ft lbs/in of notch 0.8
- Coefficient of Thermal Expansion: in/in/°C x 10^-6 31
- Heat Distortion: ‘C 65
- Water Absorption: %, 7 days @ 25° C 0.2
- Volume Resistivity @ 25° C, ohm-cm 10^16
- Glass Transition Temperature: (Tg, ‘C) 125
- Dielectric Constant @ 25° C, 100 KC 4.2
- Dissipation Factor @ 25° C, 100 KC 0.02
- Dielectric Strength, volts/mil 450
- Linear Shrinkage: in/in 0.004
- Service Temperature, ‘C continuous -55 to +155

( Typical properties when cured with H-18 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-10LV Hardener: Variable hardness, excellent impact properties, long pot life
## CC3-402A

<table>
<thead>
<tr>
<th>HARDENER</th>
<th>PARTS BY WEIGHT PER 100 PARTS OF RESIN</th>
<th>POT LIFE 100 GRAM 25°C (77°F)</th>
<th>CURE TIME 25°C (77°F)</th>
<th>CURE TIME 65°C (149°F)</th>
<th>CURE TIME 125°C (257°F)</th>
</tr>
</thead>
<tbody>
<tr>
<td>H-1 Hardener</td>
<td>7.0</td>
<td>1 hr.</td>
<td>24 hrs.</td>
<td>2 hrs.</td>
<td>- - -</td>
</tr>
<tr>
<td>H-18 Hardener</td>
<td>14.5</td>
<td>2 hrs.</td>
<td>24 hrs.</td>
<td>2 hrs.</td>
<td>- - -</td>
</tr>
<tr>
<td>H-10LV Hardener</td>
<td>rigid 20</td>
<td>3 hrs.</td>
<td>24 hrs.</td>
<td>3 hrs.</td>
<td>- - -</td>
</tr>
<tr>
<td>H-10LV Hardener</td>
<td>semi-flex 43</td>
<td>3 hrs.</td>
<td>24 hrs.</td>
<td>3 hrs.</td>
<td>- - -</td>
</tr>
<tr>
<td>H-10LV Hardener</td>
<td>flexible 65</td>
<td>3 hrs.</td>
<td>24 hrs.</td>
<td>3 hrs.</td>
<td>- - -</td>
</tr>
</tbody>
</table>

**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-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 CC3-402 thoroughly in its 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 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.