EPOXY RESIN SYSTEMS

Epoxies are known for their excellent mechanical and chemical resistance properties. They offer great water and heat resistance, as well as providing a tough, strong, low shrink material. Epoxies consist of two parts, Base (E) and Hardener (H), and are mixed at a Specified Mix Ratio. Below are some recommended systems, but other custom systems are available. Contact Technical support for assistance in selecting an appropriate system.

ADHESIVE and FOAM COATING

ADHESIVE and FOAM COATING

EPOXY PUTTY PASTE  Creamy paste, 1 to 1 mix ratio, used to hard coat foams, as an adhesive, fairing, and patching or decorative sculpting compound  Work Time—90min  Cure—12-16hrs

ALUMINUM TOOLING  MOLDS and VACUUM FORM TOOLING

E-108 A HT  Aluminum Filled with Good Flow Properties—Low Viscosity
H-82R  Best High Temperature Resistance Hardener—300F+ **Requires Post Cure
H-2052  Thin Casting Hardener less than 1” Thickness, Heat Resistance below 250F

CASTING

E-108 WC  Water Clear Epoxy, Great for Clear Castings
H-403  Use for Castings ¼”- 4” Thickness, Long Work time for bubble free castings 2-4hrs  Cure—48hrs
H-403A  Faster Setting for castings under 3” thick

CLEAR COAT

E-108 SP-WC  Clear Coat Epoxy used for Encapsulating, Coating, Decoupage for Protection of Wood, Plastic or Ceramic
H-499  Use for thin applications 1/16”  Work Time—20min  Cure—18hr

LAMINATING and TOOLING SURFACE/GELCOAT

E-108 GC  Epoxy Gel Coat, Creates a Very Hard Face Coat for Fiberglass Lay-Ups
H-2072  General Purpose ¼” Thickness  Work Time—15min  Cure—16hr
H-82R  Use for application requiring 300F+

E-108 SP  Low Sag, Laminating and Brush-On system, Great Coating for Carving Foams
H-1922

HARDENER DESCRIPTIONS:

H-82R  High Temperature Hardener for Constant or Long Heat Cycles 300F **Requires Post Cure
H-403  Clear, Mass Cast up to 4” Thick, Low 200F Range with Filled Systems
H-403A  Clear Yellow, Faster Setting for Casting Clear Parts upto 3” Thick—200F
H-499  Clear Yellow, Faster Cure Under 2” Thick  *MIX ONLY SMALL AMOUNTS—QUART
H-1922  Clear Yellow, Thin Section Cure, High Temperature Hardener—High 250F Range with Filled Systems
H-2052  Cold Weather, Thin Section Cure—250F  *MIX ONLY SMALL AMOUNTS—QUART
H-2072  Very Quick Epoxy Hardener—Use for Cooler Weather/ Thin Section Pieces  
*MIX ONLY SMALL AMOUNTS—Builds Heat Fast in Mass

Note: Length of time at high temperature determines serviceability of Epoxy. Full cure of Epoxy could be 72 hours or next day with post cure of 125-150F for 2hours. If Constant High temperature resistance is required, allow part to cure at ambient temperature then follow Post Cure Schedule up to the Hardener’s working temperature:

<table>
<thead>
<tr>
<th>Temperature</th>
<th>Cure</th>
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<tbody>
<tr>
<td>150F</td>
<td>1 HOUR/ 2 inch thick</td>
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<tr>
<td>175F</td>
<td>1 HOUR/ 2 inch thick</td>
</tr>
<tr>
<td>200F</td>
<td>1 HOUR/ 2 inch thick</td>
</tr>
<tr>
<td>250F</td>
<td>1 HOUR/ 2 inch thick</td>
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**Epoxy may exhibit some brittleness until fully cured. Color can change with UV exposure or with large mass casting which has a higher exotherm.