

# Leepoxy Plastics, Inc.

3706 W. Ferguson Rd., Fort Wayne, IN 46809

Phone: (260) 747-7411 Fax: (260) 747-7413

## PC BOARDS, UL ELECTRICAL CIRCUITRY ENCAPSULANTS

### TWO-PART EPOXIES

**LEECAST E36232-1** **Class 90**  
**Unfilled Two-Part Epoxy Encapsulant**

A two-part, low viscosity overnight room temperature cure epoxy for potting, casting, PC boards or electrical circuitry. Forgiving 2A: 1B mix ratio by volume. Pot life practical for manual mixing/dispensing as well as automatic meter-mix-dispensing equipment.

- **LEECAST E36232-2** **Class 100**  
More latent version of LEECAST E36232-1 with enhanced electrical and physical properties,

**LEECAST E36233-1** **Class 90**  
**Unfilled Two-Part Toughened Epoxy Encapsulant**

A two-part, toughened, impact-resistant epoxy encapsulant. Exceptional adhesion to non-polar wire coatings and plastic module casings.

- **LEECAST E28058-1** **Class 100**  
Filled, gasoline resistant version of LEECAST E36233-1. Used in potting lead wires in UL-listed termination kits and explosion-proof electric motors for gasoline submersible pumps.

**LEECAST E38191-1** **Class 125**  
**Filled Two-Part Gasoline-Resistant Epoxy**

A two-part, viscous, heat resistant encapsulant with superior resistance to gasoline, gasoline derivatives, and other chemicals. Superior compressive strength. Fast room temperature cure for potting electrical circuitry for UL-listed commercial gasoline pumps.

**LEECAST E16046-1** **Class 100**  
**Filled Two-Part Flame-Retardant Epoxy**

A two-part, medium viscosity, Shore 60D epoxy designed for non-burning encapsulation of electrical and electronic components. Used in UL-listed appliances and consumer products. Excellent flame retardency and good thermal shock resistance. Forgiving 1:1 mix ratio, overnight room temperature cure, and non-abrasive filler.

- **LEECAST E16046-2** **Class 125**  
Two-part, faster curing, lower viscosity version of LEECAST E16046-1 for higher temperature flame retardant applications.
- **LEECAST E29192-1** **Class 100**  
Two-part, faster curing, self-leveling, harder version of LEECAST E16046-1. Machineable after an overnight room temperature cure. Used in UL-listed appliances.

**LEECAST E38267-1** **Class 90**  
**Unfilled Two-Part Fast, Epoxy Encapsulant**

A two-part, 1:1 by volume, low viscosity, very fast curing epoxy for potting, casting, hermetically sealing, or conformal coating in small masses. Designed for high volume, rapid throughput potting of components or lead wires, especially if intricate, in small modules. Very short pot life necessitates processing through automatic meter-mix equipment. Shrinkage limits potting to small castings only. Excellent water and chemical resistance, impact resistance, and adhesion.

- **LEECAST E38267-2** **Class 90**  
Slightly slower curing version of LEECAST E38267-1. Mix ratio 1:1 by volume. Can pot ¼ inch thick casting without objectionable shrinkage.

**LEECAST E36098-2** **Class 90**  
**Unfilled Two-Part Very Fast Epoxy Encapsulant**

A two-part, epoxy viable for processing by automatic meter-mix–dispense equipment. For high throughput, on-line conformal coating, small component hermetic sealing, and “dot” encapsulating. Leepoxy’s fastest room temperature curing epoxy whose pot life in a static mixer is long enough for practical use in automatic meter-mix-dispense equipment. Because of exotherm/shrinkage considerations, only viable for continuous small mass potting/coating/sealing.

SUGGESTED CURE CYCLES	
1/4 inch thick casting	90 seconds @ 25°C
1/8 inch thick casting	Gel @ 25°C + 150°F
<1/8 in. thick casting	60 seconds @ 150°F

**LEECAST E36234-1** **Class 90**  
**Unfilled Two-Part Low Viscosity Excellent Clarity**

Two-part, fast, room temperature curing epoxy for encapsulating intricate circuitry where optical clarity is critical. A forgiving mix ratio provides a choice of performance properties. Excellent water absorption, tensile strength, and/or impact resistance properties.

**LEECAST E15095-2** **Class 150**  
**Filled Two-Part High Voltage Epoxy Encapsulant**

A two-part, medium viscosity epoxy combining good thermal conductivity, excellent dielectric properties and flame retardance. Used in UL-listed high voltage applications requiring excellent electrical performance, heat dissipation, and flame retardance. Long pot life and low shrinkage allows for practical manual mix dispensing and large volume casing/potting.

- **LEECAST E15095-3** **Class 125**  
Lower viscosity version of LEECAST E15095-2. Similar electrical and physical properties.

**LEECAST E16063-1** **Class 125**  
**Filled Two-Part Excellent Heat Conductive Epoxy**

A two-part epoxy used in UL-listed electrical applications. Pot life is practical for both manual and automatic meter-mix-dispense processing. Overnight room temperature cure. Expedited full cure can be achieved by initial gellation at room temperature followed by a one hour at 125°C.

**TWO-PART HEAT CURED  
EPOXIES**

**LEECAST E23170-1** **Class 125**  
**Unfilled Two-Part Long Work Life Epoxy**

A two-part epoxy with 8 hour pot life at room temperature and whose low viscosity can be reduced with modest heating for even better flow and wet-out. Mix ratio 1:1 by volume. Shore 80D material. Excellent tensile strength, electrical properties, and chemical resistance.

**LEECAST E19031-2** **Class 135 with silica fill**  
**Unfilled Two-Part Flexible Epoxy Encapsulant**

For potting automotive “under the hood” and other high-temp electronic modules utilizing high purity silica as a “user added” filler component. Two-part, 1:1 by volume epoxy used in a vacuum impregnation through silica process for potting General Motors electronic control modules. Low viscosity and hours-long pot life at room temperature allows pre-heating mixed epoxy for extremely rapid silica penetration. Cure at 125°C for 2 hours provides excellent electrical and physical properties for automotive and non-automotive applications subject to 135°C operating temperatures.

**LEECAST E36235-1** **Class 187**  
**Unfilled Two-Part High Temperature Epoxy**

A two-part, low viscosity, hours-long pot life epoxy for potting, casting, or encapsulating applications. Maintains maximum integrity and electrical properties while subject to continuous operating temperatures up to 187°C (369°F). Filled versions have increased viscosity but better heat resistance.

**ONE-PART HEAT CURED  
EPOXIES**

**LEECAST E36236-1** **Class 110**  
**Unfilled One-Part Very Latent Epoxy Encapsulant**

A one-part, medium viscosity epoxy combining superior room temperature latency (weeks in large mass) with very fast cure at elevated temperatures. Exceptional electrical properties. For potting high voltage components subject to continuous operating temperature up to 110°C.

**LEECAST E36237-1** **Class 120**

**Unfilled One-Part Very Latent Epoxy Encapsulant**

A low viscosity, one-part system with 2-month shelf life in 5-gallon mass. Produces castings with outstanding electrical properties. Used for potting, casting, vacuum impregnation and encapsulation of components subjected to high voltages at high temperatures.

**LEECAST E36237-2** **Class 135**

**Unfilled One-Part Very Latent Epoxy Encapsulant**

A low viscosity, one-part system with 2-month shelf life in 5-gallon mass. Produces castings with outstanding electrical properties and exterior durability. Used for potting, casting, vacuum impregnation and encapsulation of components subjected to high voltages at high temperatures. Mechanical properties and chemical resistance of cured castings are excellent.

## **TWO-PART URETHANES**

**LEECAST U23130-5** **Class 110**

**Unfilled Tough Shore 50A, 400% Elongation Urethane Encapsulant**

A two-part, Shore 50A, low viscosity, room temperature curing urethane with good low temperature flexibility (Shore 70A at 40°F). Impressive 400% elongation at room temperature. Non-re-enterable encapsulant with excellent dielectric properties and hydrolytic stability. Used for encapsulating glass diodes, pressure-sensitive electronic components, and fragile electrical circuitry in UL-listed products. Excellent resistance to water and chemicals and to thermal and mechanical shock, and excellent electrical properties. Adhesion to synthetic rubber wire or cable coatings, plastic module casings, and pc board housings is outstanding, as is tear or cut resistance. For high volume, high throughput processing utilizing automatic meter-mix-dispense equipment, LEECAST U23130-5 can be tailored to any practical pot life/cure time combination, without affecting any handling or performance property other than reactivity. Contains no MOCA or TDI.

• **LEECAST U20073-1** **Class 110**

More convenient 4:1 by weight mix ratio version of LEECAST U23130-5, for manual measure-mix-dispensing

• **LEECAST U22133-1** **Class 115**

Filled, more viscous version of LEECAST U23130-5 for reinforced protection to fragile encapsulated electronic components.

• **LEECAST U22221-1** **Class 110**

Unfilled, medium viscosity, 1:1 mix version of LEECAST U23130-5. Higher tensile strength and less elongation (250%).

• **LEECAST U30218-1** **Class 120**

Filled, flame-retardant, medium viscosity, Shore 80A version of LEECAST U23130-5 with very similar, outstanding electrical properties. For potting electronic components in UL-listed consumer appliances.

**LEECAST U32129-1** **Class 135**

**Filled Two-Part Shore 55D Flame Retardant**

A two-part, Shore 55D urethane with medium viscosity, 4:1 mix by weight, excellent thermal conductivity and resistance. Low exotherm and low shrinkage during cure, Fast potted part turn-around/quick de-mold cycle. For potting electrical components in UL-listed consumer appliances and automotive “under the hood” where flame retardance, hydrolytic stability, reversion resistance, and electrical and physical performance are critical.

**LEECAST U30152-1** **Class 90**

**Filled Two-Part Shore 60D Urethane Encapsulant**

A two-part, rigid (Shore 60D with post cure), tough, 2:1 by weight mix urethane. Retains most physical properties to 100°C. Good electrical properties. Available with pot lives ranging from 5 minutes up to 50 minutes. Rapid de-mold time even with maximum work life version. Contains no MOCA or TDI.

**LEECAST U30125-1** **Class 125**

**Filled Two-Part Shore 90D Urethane Encapsulant**

A two-part, hard (Shore 90D) two-part urethane that develops full hardness overnight at room temperature. Processing can be accelerated with heat cure. Features 4:1 mix by weight. Medium viscosity allows bubbles to rise and escape within 5 minutes. For potting or casting sturdy electronic and electrical components or over-coating conformal-coated pressure sensitive components subject to high impact, high physical stress environments up to 125°C. Contains no MOCA or TDI.

**Note:** Leepoxy can formulate all of its two-part urethane encapsulants to provide any practical pot life/cure time combination without affecting any handling or performance property other than reactivity.