

Leepoxy Plastics, Inc.

3706 W. Ferguson Rd., Fort Wayne, IN 46809
Phone (260) 747-7411 Fax: (260) 747-7413

TECHNICAL BULLETIN LEECAST E15095-3

Description

LEECAST E15095-3 is a two-part epoxy casting compound designed for encapsulation of high voltage components. It provides a system that is non-burning and highly resistant to thermal cycling with minimal effect on components.

Several modifications of Leepoxy's LEECAST E15095 are available for special needs. Their characteristics as compared to LEECAST E15095-3 are:

- E15095-0** Lower specific gravity; higher viscosity.
- E15095-1** Color in Part A.
- E15095-2** More heat resistant.
- E15095-4** Faster cure; higher exotherm.

TYPICAL PROPERTIES		
	Part A	Part B
Appearance	Tan liquid	Black liquid
Viscosity @ 25°C, cps	20,000	25
Density, lbs./gallon	14.0	7.5
Shelf life, months	12	12

Handling and Mixing

LEECAST E15095-3 can be mixed, deaired and cast at normal ambient temperatures of 70 – 85°F. To lower the viscosity, Part A can be warmed to

around 100°F before mixing. Preheating of the component to no more than 120°F will also aid in the filling of smaller components.

Measure out the proportionate quantities of Parts A and B and mix thoroughly, scraping the sides and bottom of the container. De-air using vacuum and pour the blended epoxy in the mold. Gel at room temperature (25°C) for 4 – 6 hours, then post-cure for 1 hour at about 80°C.

TYPICAL HANDLING PROPERTIES		
	Part A	Part B
Mix Ratio, by weight	100	8
Mixed Viscosity @ 25°C, cps	3,000	
Work Life @ 25°C, min.	100	
Cure Schedule	Gel at 25°C for 4 – 6 hours, then post- cure 1 hour at 80°C	

Safety

Some individuals may be sensitive to epoxy compounds. Care should be taken to minimize contact. If skin contact occurs wash with soap and water. If eye contact occurs, flush with copious quantities of water.

Keep containers closed when not in use to prevent contamination. Minimize exposure to Part B to air and moisture.

TYPICAL PERFORMANCE	
Tensile Strength, psi	9,000
Compressive Strength, psi	22,000
Flexural Strength, psi	14,500
Hardness, Shore D	87
Shrinkage, %	0.25
Heat Deflection Temperature, °C	80
Coefficient of Expansion, (25 – 100°C) (in/in/°C x 10 ⁻⁶)	30
Specific Gravity, g/ml	1.6
Water Absorption, %	0.05
Flammability, U.L. 492	SE-0

TYPICAL ELECTRICAL PERFORMANCE		
Parameter	Temp (°C)	Value
Volume Resistivity, ohm-cm	25	>2.0 x 10 ¹⁴
	80	4.4 x 10 ¹³
	100	1.1 x 10 ¹²
	125	8.7 x 10 ¹⁰
	150	1.3 x 10 ¹⁰
Dissipation Factor, 15K Hz	25	0.017
	80	0.016
	100	0.016
	125	0.021
	150	0.019
Dielectric Constant, 15K Hz	25	5.25
	80	5.72
	100	5.85
	125	6.11
	150	6.30

The Information contained herein is correct to the best of our knowledge. The recommendations or suggestions contained in this bulletin are made without guarantee or representation as to results. We suggest that you evaluate these recommendations and suggestions in your own laboratory prior to use. Our responsibility for claims arising from breach of warranty, negligence or otherwise is limited to the purchase price of the material. Freedom to use any patent owned by Leepoxy Plastics, Inc. or others is not to be inferred from any statement contained herein

Leepoxy Plastics, Inc. July 2002