

Leepoxy Plastics, Inc.

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TECHNICAL BULLETIN LEECAST E16046-1

Description

LEECAST E16046-1 is a two-part epoxy encapsulant used in UL-listed electrical applications. It is a filled system designed for non-burning encapsulation of electrical and electronic components. The filler is non-abrasive. The benefits of LEECAST E16046-1 include excellent flame retardance, good thermal shock resistance, good electrical properties, and a forgiving 1:1 mix ratio.

TYPICAL PROPERTIES		
	Part A	Part B
Appearance	Off-white liquid	Black liquid
Thixotropy @ 25°C, cps	25,500	16,100
Viscosity @ 25°C, cps	8,900	10,200
Density, lbs/gal	12.0	12.0
Shelf Life, months	12	12

Directions for Use

LEECAST E16046-1 can be mixed, de-aired, poured and cured at room temperature. The mix ratio is very forgiving. The nominal 1:1 ratio provides optimal properties for most applications. A ratio of 100 A to 75 B will give a harder, less flexible cured product while 100 A to 125 B will be softer and more flexible.

Measure out Parts A and B and mix thoroughly, scraping the sides and bottom of the container. For void-free castings,

de-air under vacuum and cast around components.

TYPICAL HANDLING PROPERTIES		
	Part A	Part B
Mix Ratio, by volume	100	100
, by weight	100	100
Mixed Color	Black	
Gel Time @ 25°C, 100 g, min	120	
Cure Schedule @ 25°C, hours	24 – 48	
@ 50°C, hours	4 – 8	
@ 80°C, hours	1 – 2	
@ 100°C, min	40 - 60	

The gel time of LEECAST E16046-1 depends on the cure temperature and mass of material. Large masses and/or elevated temperatures will shorten the gel time. Cure can be accomplished either at room temperature, or with heat if shorter cure times are desired. Typical cure schedules are in the table above.

TYPICAL PERFORMANCE	
Hardness, Shore D	75
Dielectric Strength, 25°C, volts/mil	400
Dielectric Constant, 25°C, 1 MHz	4.4
Dissipation Factor, 25°C, 1 MHz	0.025
Volume Resistivity, ohm-cm, 25°C	1×10^{14}
Tensile Strength, psi	7,000
Tensile Elongation, %	12.0

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