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**LEECAST 16-46 A
 FLAME RETARDANT EPOXY ENCAPSULANT**

Description

LEECAST 16-46 is a two-part epoxy compound designed for the encapsulation of electrical and electronic components. The advantages of LEECAST 16-46 include flame retardancy, good thermal shock resistance, good electrical properties, non-abrasive filler, easy 1 to 1 mix ratio and room temperature cure.

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.

The gel time of LEECAST 16-46 depends on the temperature and mass of material. Large masses and/or elevated temperatures will shorten the gel time.

Cure can be accomplished at room temperature or with heat if faster cures are desired. Typical cure schedules for small masses are:

TYPICAL PROPERTIES		
	Part A	Part B
Appearance	Off-white liquid	Black liquid
Viscosity, 25°C, cps.	4,500	16,000
Density, lbs./gal.	11.7	12.25
Shelf Life, months	6	6

25°C	24 – 48 hours
50°C	4 – 8 hours
80°C	1 – 2 hours
100°C	40 – 60 minutes

Handling and Mixing

LEECAST 16-46 can be mixed de-aired, poured and cured at room temperature. Flexibility is built into the system and different resin to curative ratios can be used. The 1 to 1 mix ratio will provide excellent properties for many applications. More resin relevant to the curative (3 A to 2 B, by weight) will result in a harder, less flexible cured material.

TYPICAL PERFORMANCE	
Hardness, Shore D	75
Tensile Strength, psi	7,000
Tensile Elongation, %	12.0
Water Absorption, 7 days at R.T., %	0.2

TYPICAL HANDLING PROPERTIES		
	Part A	Part B
Mix Ratio, by weight	100	100
Mixed Color	Black	
Pot Life, 25°C, minutes	45	
Gel Time, 25°C, minutes	60 – 90	
Cure Time, 25°C, hours	24 – 48	
Cure Time, 80°C, hours	1 – 2	

TYPICAL ELECTRICAL PERFORMANCE		
Parameter	Temp (°C)	Value
Volume Resistivity, ohm-cm	25	1.0 x 10 ¹⁴
Dissipation Factor, 100 Hz	25	0.025
Dielectric Constant, 100 Hz	25	4.4
Dielectric Strength, volts/mil	25	400

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