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**LEECAST 23-130-5  
 TOUGH, 400% ELONGATION URETHANE ENCAPSULANT**

**Description**

LEECAST 23-130-5 is a unique urethane system that contains neither MOCA nor TDI. LEECAST 23-130-5 is designed to provide excellent dielectric properties over a wide temperature range. It has good low temperature flexibility and is ideally suited for protecting pressure sensitive glass diodes and other fragile electrical circuitry in UL-listed products. Its low viscosity and long pot life make it attractive for penetrating complex modules and for the aggregate casting method of encapsulation and potting. LEECAST 23-130-5 also features excellent reversion resistance and hydrolytic stability.

TYPICAL PROPERTIES		
	Part A	Part B
Appearance	Black liquid	Amber liquid
Viscosity, 25°C, cps.	2000	30
Density, lbs./gal.	7.5	10.3
Shelf Life, months	12	12

**Handling and Mixing**

LEECAST 23-130-5 may be mixed and poured at room temperature without de-airing. Air bubbles mixed into the system will rise out of the liquid before gellation. A typical cure cycle is overnight at 25°C plus 2 hours at 80°C or 72 hours at 25°C.

TYPICAL HANDLING PROPERTIES		
	Part A	Part B
Mix Ratio, by weight,	100	16
Gel Time @ 25°C, 100 g, min	45 – 60	
Cure Time @ 25°C, hours	72	

TYPICAL PERFORMANCE	
Hardness, Shore A	
@ -40°C	65
@ 25°C	45
@ 85°C	30
Tensile Strength, 25°C, psi	350
Tensile Modulus, psi, -40 °C	
@ 10% elongation	75
@ 50% elongation	260
Tensile Elongation, %	
@ -40°C	>50
@ 25°C	400
Tear Strength, Die C, PLI, 25 °C	35
Thermal Conductivity, cal/cm <sup>2</sup> /cm/°C/sec	3.4 x 10 <sup>-4</sup>
Dielectric Constant, 100 KHZ	
@ 25°C	2.34
@ 85°C	2.51
Dissipation Factor, 100 KHZ	
@ 25°C	0.011
@ 85°C	0.019
Volume Resistivity, ohm-cm	
@ 25°C	1.3 x 10 <sup>14</sup>
@ 85°C	8.9 x 10 <sup>11</sup>
Weight Loss, 500 hours, 85°C, %	2.8
Weight Loss, 500 hour, 110°C, %	4.2
Hardness Change, 1000 hours, 56°C, Shore A	+3

**Safety**

LEECAST 23-130-5 Part B is a super cooled liquid and may crystallize. Store at 75–95°F. If crystallization occurs, heat to 120°F in a vented oven. Do not overheat. Avoid skin contact and do not inhale vapors. Always use in a well-ventilated area.

<b>TYPICAL PERFORMANCE</b>	
Resistance to Distilled Boiling Water, 170 hours	
Weight Change, %	0.27
Hardness Change, Shore A	-8

<b>CHEMICAL RESISTANCE TESTS, EXPOSURE 24 HOURS @ 100°F</b>			
Chemical	Tensile Properties Change	Hardness Change, Shore A	Weight Change, %
Sulfuric Acid, 3%	No Change	-1	+0.019
Sodium Hydroxide, 0.2 N	No Change	-1.5	+0.027
Sodium Chloride, 5%	No Change	No Change	+0.062
Sodium Carbonate, 0.1 N	No Change	-1	+0.073
Acetic Acid, 5%	No Change	-2	+0.156