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♦ TECHNICAL BULLETIN ♦ TECHNICAL BULLETIN ♦ TECHNICAL BULLETIN ♦

## Epoxy Resin RBC # 1047

CLEAR-1047 is a low viscosity ultra-clear resin used in potting and casting applications where a clear resin system is desirable. Depending on the hardener selected, CLEAR-1047 resin can be cured at room temperature or at elevated temperatures to obtain specific properties.

### HANDLING PROPERTIES:

Mixed Viscosity @ 25°C,cps	900
Shelf Life, (closed Container @ 25°C)	12 Months

### PHYSICAL PROPERTIES (CURED):

Color	Clear
Specific Gravity @ 25°C	1.15
Hardness, Shore D	86
Linear Shrinkage, in./in.	0.008
Moisture Absorption 10 Days @ 25°C, %	0.19
Izod Impact Strength, ft. lbs./in. of notch	0.55
Tensile Strength @ 25°C, psi	9,100
Compressive Strength @ 25°C, psi	1,800

### THERMAL PROPERTIES (CURED):

Thermal Conductivity, Cal/Sec/CM <sup>2</sup> /°C/CM X 10 <sup>-4</sup>	5.2
Thermal Stability, 1000 Hrs. @ 175°C, % Wt. Loss	0.45
Coefficient of Thermal Expansion, in./in./°C X 10 <sup>-6</sup>	50
Heat Distortion temperature, °C 140	
Operating Temperature Range, °C	-55 to 140

### ELECTRICAL PROPERTIES (CURED):

Volume Resistivity @ 25°C, OHM-CM	6x10 <sup>15</sup>
Dielectric Strength, Volts/Mil	475
Dielectric Constant @ 25°C, 100 KC	4.3
Dissipation Factor @ 25°C, 100 KC	0.030

The above properties are typical of a system cured with hardener #B-31

### RECOMMENDED HARDENERS:

B- 31	A rigid, heat cure system with a long pot life, designed for small to large castings.
B-125	A rigid, faster setting version of B-31 with excellent air-release and hardness.

**MIXING INSTRUCTIONS:** Weigh the desired amount of CLEAR-1047 resin into a clean container and combine with recommended hardener in one of the ratios shown below.

<b>Hardeners</b>	<b>Parts by wt. per 100 pts. resin</b>	<b>Pot Life 100 grms. @ 25°C</b>
B-31	50	2- 3 hrs.
B-125	45	1-2 hrs.

**RECOMMENDED CURE SCHEDULE:**

<b>Hardener</b>	<b>Cure @ 25°C</b>	<b>Cure @ 65°C</b>	<b>Cure @ 100°C</b>	<b>Cure @ 130°C</b>	
B-31	-	1-2 hrs.	1 hr.	30-45 mins.	
B-125	-	1 hr.	30-40 mins.	30 mins.	-

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