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## EPOXY RESIN RBC #3412

RBC #3412 is a filled, thixotropic, general purpose dip coating resin. Its' physical and electrical properties are similar to #3300 Resin, but #3412 is can be used for dipping and coating transformers, coils , capacitors, etc.. RBC-3412 can be cured at room temperature or elevated temperatures, depending upon the hardener selected and the heat resistance of the part.

### HANDLING PROPERTIES:

Mixed Viscosity @ 25°C,cps	Thixotropic
Shelf Life, (Closed Container @ 25°C)	12 Months

### PHYSICAL PROPERTIES (CURED):

Color	Black
Specific Gravity @ 25°C	1.45
Hardness, Shore D	85
Linear Shrinkage, in./in.	0.003
Moisture Absorption 10 Days @ 25°C, %	0.29
Izod Impact Strength, ft. lbs./in. of notch	0.29
Tensile Strength @ 25°C, psi	6,060
Compressive Strength @ 25°C, psi	17,300

### THERMAL PROPERTIES (CURED):

Thermal Conductivity, cal/sec/cm <sup>2</sup> /°C/cm X 10 <sup>-4</sup>	7.8
Thermal Stability, 1000 Hrs. @ 175°C, % Wt. Loss	0.50
Coefficient of Thermal Expansion, in./in./°C X 10 <sup>-6</sup>	39
Heat Distortion temperature, °C	130
Operating Temperature Range, °C	-55 to 155

### ELECTRICAL PROPERTIES (CURED):

Volume Resistivity @ 25°C, ohm-cm	8 x 10 <sup>16</sup>
Dielectric Strength, volts/mil	475
Dielectric Constant @ 25°C, 100 KC	4.1
Dissipation Factor @ 25°C, 100 KC	0.022

The above properties are typical of a system cured with Hardener #AB-312.

### RECOMMENDED HARDENERS:

A-110	A rigid, room temperature curing system with limited pot life and fast cure.
A-121	A resilient, low-viscosity system with slightly longer pot life, that exhibits excellent resistance to thermal shock.
AB-312	Good resistance to heat, chemicals, thermal and mechanical shock, and good electrical properties at high humidity.

**MIXING INSTRUCTIONS:** Weigh the desired amount of RBC #3412 Resin into a clean container and combine with recommended hardener in one of the ratios shown below.

<b>HARDENER</b>	<b>PARTS BY WT. PER 100 PTS. RESIN</b>	<b>POT LIFE 100 @ 25°C</b>
A-110	7	1 Hour
A-120, A-121	15	2 Hours
AB-312	16	2 Hours

**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>
A-110	24 Hrs.	2 Hrs.	---	---
A-120	24 Hrs.	2 Hrs.	---	---
AB-312	-----	6 Hrs.	3 Hrs.	2 Hrs.