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♦ TECHNICAL BULLETIN ♦ TECHNICAL BULLETIN ♦ TECHNICAL BULLETIN ♦

Epoxy Resin RBC #3412

RBC-3412 is a filled, thixotropic, general purpose dip coating epoxy 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 ² /°C/cm X 10 ⁻⁴	7.8
Thermal Stability, 1000 Hrs. @ 175°C, % Wt. Loss	0.50
Coefficient of Thermal Expansion, in./in./°C X 10 ⁻⁶	39
Heat Distortion Temperature, °C	130
Operating Temperature Range, °C	-55 to 155

ELECTRICAL PROPERTIES (CURED):

Volume Resistivity @ 25°C, ohm-cm	8x10 ¹⁶
Dielectric Strength, volts/mil	475
Dielectric Constant @ 25°C, 100 KC	4.1
Dissipation Factor @ 25°C, 100 KC	0.022

(Note: 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-120: 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 #3412 Resin into a clean container and combine with recommended hardener in one of the ratios shown below.

Hardener	Parts by wt. per 100 pts. resin	Pot Life 100 grms. @ 25°C
A-110	7	1 hr.
A-120	15	2 hrs.
AB-312	16	2 hrs.

RECOMMENDED CURE SCHEDULE:

Hardener	Cure @ 25°C	Cure @ 65°C	Cure @ 100°C	Cure @ 130°C
A-110	24 HRS.	2 HRS.	-	-
A-120	24 HRS.	2 HRS.	-	-
AB-312	-	6 HRS.	3 HRS.	2 HRS.