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♦ TECHNICAL BULLETIN ♦ TECHNICAL BULLETIN ♦ TECHNICAL BULLETIN ♦

Epoxy Resin RBC #3410

RBC-3410 is a filled, low-viscosity, general purpose epoxy potting and casting resin. Its physical and electrical properties are similar to RBC-3300 Resin, but RBC-3410 offers superior wetting characteristics when potting intricate components. It 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	1,500
Shelf Life, (closed Container @ 25°C)	12 months

PHYSICAL PROPERTIES (CURED):

Color	Black
Specific Gravity @ 25°C	1.55
Hardness, Shore D	85
Linear Shrinkage, in./in.	0.003
Moisture Absorption 10 Days @ 25°C, %	0.30
Izod Impact Strength, ft. lbs./in. of notch	0.29
Tensile Strength @ 25°C, psi	6,500
Compressive Strength @ 25°C, psi	14,400

THERMAL PROPERTIES (CURED):

Thermal Conductivity, cal/sec/cm ² /°C/cm X 10 ⁻⁴	8.0
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 #3400 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	4 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.

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