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♦ TECHNICAL BULLETIN ♦ TECHNICAL BULLETIN ♦ TECHNICAL BULLETIN ♦

EPOXY RESIN RBC #3800

RBC #3800 System is an unfilled, low viscosity, semi-flexible epoxy used for encapsulating, potting, or insulating a variety of electronic components. It exhibits excellent impact and thermal shock resistance. Electrical and physical properties are stable at 130°C continuous operation. The #3800 system is also available in a pigmented version to insure a proper mix.

HANDLING PROPERTIES:

Mixed Viscosity @ 25°C,cps 3,500
Shelf Life, (closed Container @ 25°C) 12 Months

PHYSICAL PROPERTIES (CURED):

Color Translucent
Specific Gravity @ 25°C 1.10
Hardness, Shore D 55
Linear Shrinkage, in./in. 0.008
Moisture Absorption 10 Days @ 25°C, % 0.81
Izod Impact Strength, ft. lbs./in. of notch 1.40
Tensile Strength @ 25°C, psi 2,100
Compressive Strength @ 25°C, psi 3,000

THERMAL PROPERTIES (CURED):

Thermal Conductivity, Cal/Sec/CM²/°C/CM X 10⁻⁴ 5.5
Thermal Stability, 1000 Hrs. @ 175°C, % Wt. Loss 3.20
Coefficient of Thermal Expansion, in./in./°C X 10⁻⁶ 85
Heat Distortion Temperature, °C 35
Operating Temperature Range, °C -65 to 130

ELECTRICAL PROPERTIES (CURED):

Volume Resistivity @ 25°C, ohm-cm 8 x 10¹⁵
Dielectric Strength, volts/mil 400
Dielectric Constant @ 25°C, 100 KC 4.80
Dissipation Factor @ 25°C, 100 KC 0.0016

MIXING INSTRUCTIONS: Weigh the desired amount of #3800 Resin into a clean container and combine with recommended amount of #3800 Hardener. Mix thoroughly. Entrapped air may be removed by vacuum.

RECOMMENDED CURE SCHEDULE:

Mix Ratio by weight:		100 parts resin to 200 parts hardener
Pot Life	@ 25°C	1 weeks
	@ 65°C	12 hours
	@ 100°C	30 minutes
Cure Time	@ 75°C	15 - 20 hours
	@ 95°C	6 - 8 hours
	@ 120°C	2 - 3 hours