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♦ TECHNICAL BULLETIN ♦ TECHNICAL BULLETIN ♦ TECHNICAL BULLETIN ♦

EPOXY RESIN RBC-6100

RBC-6100 is a pure silver filled, electrically conductive epoxy resin. It is designed for applications requiring conductive electrical connections when it is impractical to use conventional soldering techniques. RBC #6100 is a 100% solids system offering excellent adhesion to metal, glass, ceramics and plastic substrates. It can be combined with a variety of hardeners to provide various working times and cured characteristics.

HANDLING PROPERTIES:

Mixed Viscosity @ 25°C, cps Thixotropic Paste
Shelf Life, (closed Container @ 25°C) 12 months

PHYSICAL PROPERTIES (CURED):

Color Silver
Specific Gravity @ 25°C 2.60
Hardness, Shore D 85
Linear Shrinkage, in./in. 0.003
Moisture Absorption 10 Days @ 25°C, % 0.20
Izod Impact Strength, ft. lbs./in. of notch 0.35
Tensile Strength @ 25°C, psi 9,000
Compressive Strength @ 25°C, psi 14,000

THERMAL PROPERTIES (CURED):

Thermal Conductivity, cal/sec/cm²/°C/cm X 10⁻⁴ 48.0
Thermal Stability, 1000 Hrs. @ 175°C, % Wt. Loss 0.30
Coefficient of Thermal Expansion, in./in./°C X 10⁻⁶ 16
Heat Distortion Temperature, °C 100
Operating Temperature Range, °C -55 to 170

ELECTRICAL PROPERTIES (CURED):

Volume Resistivity @ 25°C, ohm-cm 1x10⁻⁴

(Note: The above properties are typical of a system cured with hardener #A-150.)

RECOMMENDED HARDENERS:

A-150: A rigid, room temperature curing system with limited pot life and fast cure.

A-115: A resilient, low viscosity system with slightly longer pot life, that exhibits excellent resistance to thermal shock.

B-130: Good resistance to heat, chemicals, thermal and mechanical shock, and good electrical properties at high humidity.

RBC #6100 Continued

MIXING INSTRUCTIONS:

Weigh the desired amount of #6100 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-150	5	1 hr.
A-115	4.5	3 hrs.
B-130	1.0	24 hrs.

RECOMMENDED CURE SCHEDULE:

Hardener	Cure @ 25°C	Cure @ 65°C	Cure @ 100°C	Cure @ 130°C
A-150	24 HRS.	2 HRS.	-	-
A-115	24 HRS.	2 HRS.	-	-
B-130	-	16 HRS.	3 HRS.	2 HRS.