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♦ TECHNICAL BULLETIN ♦ TECHNICAL BULLETIN ♦ TECHNICAL BULLETIN ♦

EPOXY RESIN RBC #6400

RBC #6400 is a variable ratio two-part, 100% solids, economical nickel filled conductive epoxy resin. It is designed for use where conductive electrical connections are required and conventional soldering techniques are impractical. RBC #6400 bonds well to metal, glass, ceramics, and plastics.

HANDLING PROPERTIES:

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

PHYSICAL PROPERTIES (CURED):

Color	Grey
Specific Gravity @ 25°C	3.10
Hardness, Shore D	85
Linear Shrinkage, in./in.	0.002
Moisture Absorption 10 Days @ 25°C, %	0.25
Izod Impact Strength, ft. lbs./in. of notch	0.38
Tensile Strength @ 25°C, psi	9,600
Compressive Strength @ 25°C, psi	14,500

THERMAL PROPERTIES (CURED):

Thermal Conductivity, cal/sec/cm ² /°C/cm X 10 ⁻⁴	39.0
Thermal Stability, 1000 Hrs. @ 175°C, % Wt. Loss	0.50
Coefficient of Thermal Expansion, in./in./°C X 10 ⁻⁶	18
Heat Distortion Temperature, °C	125
Operating Temperature Range, °C	-65 to 170

ELECTRICAL PROPERTIES (CURED):

Volume Resistivity @ 25°C, ohm-cm	1 x 10 ⁻²
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The above properties are typical of a semi-flexible formulation cured for 2 hours @ 65°C and 2 hours @ 120°C.

Mixing Instructions: Stir #6400 Resin and #6400 Hardener thoroughly in its shipping container and then weigh the desired amounts of resin and hardener into a clean container. Mix thoroughly for four minutes by hand, or one minute by machine.

Rigid, heat resistant	100 parts RBC #6400 A 50 parts Hardener #6400 B
Semi-flexible, impact and shock resistant	100 parts RBC #6400 A 100 parts Hardener #6400 B
Flexible, excellent peel strength	100 parts RBC #6400 A 200 parts Hardener #6400 B

Page 2
RBC # 6400 Continued

Recommended Cure Schedule: Pot life ranges from 2 - 6 hours depending on batch size and hardener ratio. Cure for 1 week at room temperature (25°C) or 6 hours at 65°C. For optimum properties, cure 2 hours at 65°C followed by 2 hours at 120°C.