

DuPont CB230

COPPER CONDUCTOR

Technical Data Sheet

Product Description

DuPont CB230 copper conductor is solderable composition formulated with silver-coated copper powder for enhanced solderability and leach resistance. It can be used to create additive circuitry, electrodes, and termination sites on a wide variety of substrates, including rigid and flexible polymer laminates, glass and ceramic.

Product Benefits

- Excellent solderability and leach resistance
- Strong adhesion to a wide variety of substrates
- Excellent printing properties
- Excellent adhesion to aluminum

Processing

Screen Printing Equipment

Semi-automatic, manual

Substrate

Epoxy glass, phenolic paper, Kapton®, glass, ceramic

Ink Residence Time on Screen

2 hr

Screen Types

Stainless steel or polyester

Typical Cure Conditions

Box Oven: 170°C (338°F) for 30 min

Typical Circuit Line Thickness Printed with 200-mesh stainless steel screen

25-30 microns

Clean up Solvent

Thinner DuPont 9245, Arcosolv PNP, Ethylene Diacetate

Table 1
Typical Physical Properties

Test	Properties
Sheet Resistivity (mΩ/sq) (at 25μm thickness)	65 - 75
Adhesion/Tape Pull (3M Scotch Tape #600)	No Material Transfer
Abrasion Resistance, Pencil Hardness (H) (ASTM D3363-74)	> 5
Solderability ¹ (%)	100
Change in Electrical Properties after Environmental Test	
Thermal Aging (85°C, 2000 hr)	ΔR < 30%
Heat/Humidity (60°C/95% RH/3000 hr)	ΔR < 30%
Thermal Cycling (-55<-> 125°C, 500 cycles)	ΔR < 20%
Solder Dip (260°C, 10 sec, 3 cycles)	ΔR < 10%
Change in Physical Properties After Environmental Tests	Insignificant

¹With eutectic or most other solders and mildly activated flux.

Table 2
Composition Properties

Viscosity (Pa.S) (Brookfield RVT, 10 rpm UC&SP, 25°C)	65 - 75
Coverage, cm ² /g	100 - 120
Thinner	DuPont 9245

Table 1 & 2 show anticipated typical properties for DuPont CB230 based on specific controlled experiments in our labs and are not intended to represent the product specifications, details of which are available upon request.

Storage and Shelf Life

Containers should be stored, tightly sealed, in a clean, stable environment at 0 - 5°C. Shelf life of material in unopened containers is three months from date of shipment. Some settling of solids may occur and compositions should be thoroughly mixed prior to use.

Safety and Handling

For Safety and Handling information pertaining to this product, read the Material Safety Data Sheet (MSDS).

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