

DuPont BQ331

GOLD CONDUCTIVE COMPOSITION

Technical Data Sheet

Product Description

DuPont BQ331 is a gold composition designed for working electrodes in biosensor and polymer thick film (PTF) sensors. It provides high signal to noise ratios (high sensitivity) in a multiplicity of designs. It can be used on both flatbed and reel-to-reel manufacturing lines.

Product Benefits

- High Sensitivity
- Strong Adhesion to a variety of polyethylene teraphthalate (PET) substrates

Processing

- **Screen Printing Equipment**
Reel-to-reel, semi-automatic or manual
- **Ink Residence Time on Screen**
> 1 hour
- **Screen Type**
Polyester, stainless steel
- **Typical Cure Conditions**
Box Oven: 130°C for 5 - 10 minutes
Reel-to-reel: 140°C for 1 minutes
- **Typical Circuit Line Thickness Printed with 200-mesh stainless screen**
12 - 15 microns
- **Clean-up Solvent**
Ethylene diacetate or methyl propanol acetate

Composition Properties

Test	Properties
Solids (750°C) (%)	85.5 - 88.0
Viscosity (Pa.S) [Brookfield RVT, spindle#14, 10rpm, 25°C]	15 - 30
Coverage (sqft/g/mil) (cm ² /g)	500 36
Density (g/cc)	6.04
Thinner	DuPont 8210
Typical Physical Properties on 5-mil Polyester Film	
Sheet Resistivity (mΩ/sq/mil)	500
Adhesion (Tape test) (B)	5
Abrasion Resistance (H), Pencil	2
Hardness [ASTM D3363-74]	
Solder	Not Recommended

This table shows anticipated typical physical properties for DuPont BQ331 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

DuPont BQ Series compositions should be stored in a clean, stable environment at room temperature (~25°C) with their lids tightly sealed. Storage in high temperature (>30°C) or in freezers (<0°C) is NOT recommended as this could cause irreversible changes in the material. The shelf life of compositions in factory-sealed (unopened) containers stored under room temperature (~25°C) conditions is 6 months from the date of shipment. Some settling of solids may occur over time, so composition should be stirred thoroughly before use.

Safety and Handling

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

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For more information on DuPont BQ331 or other DuPont Microcircuit Materials products, please contact your local representative:

Americas

DuPont Microcircuit Materials
14 T.W. Alexander Drive
Research Triangle Park, NC 27709
Tel.: 800-284-3382

Europe

Du Pont (U.K.) Limited
Coldharbour Lane
Bristol BS16 1QD
U.K.
Tel.: 44-117-931-3191

Asia

DuPont Kabushiki Kaisha
Sanno Park Tower, 11-1
Nagata-cho 2-chome
Chiyoda-ku, Tokyo 100-611
Japan
Tel.: 81-3-5521-8650

DuPont Taiwan Ltd
45, Hsing-Pont Road,
Taoyuan, Taiwan 330
Tel.: 886-3-377-3616

DuPont China Holding Co. Ltd
Bldg 11, 399 Keyuan Rd., Zhangji Hi-Tech Park,
Pudong New District, Shanghai 201203, China
Tel.: 86-21-6386-6366 ext.2202

DuPont Korea Inc.
3~5th Floor, Asia tower #726,
Yeoksam-dong, Gangnam-gu
Seoul 135-719, Korea
Tel.: 82-10-6385-5399

E. I. DuPont India Private Limited
7th Floor, Tower C, DLF Cyber Greens,
Sector-25A, DLF City, Phase-III,
Gurgaon 122 002 Haryana, India
Tel.: 91-124-4091818

Du Pont Company (Singapore) Pte Ltd
1 HarbourFront Place, #11-01
HarbourFront Tower One,
Singapore 098633
Tel.: 65-6586-3022

<http://mcm.dupont.com>