

DuPont™ BQ331

Gold Conductive Composition

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 terephthalate (PET) substrates

Processing

Screen Printing Equipment

Reel-to-reel, semi-automatic or manual

Ink Residence Time on Screen

>1 Hour

Screen Types

Polyester, stainless steel

Typical Cure Conditions

Box oven: 130°C for 5-10 minutes

Reel-to-reel: 140°C for 1 minute

Typical Circuit Line Thickness Printed with 200-mesh Stainless Steel Screen

12-15 microns

Clean-Up Solvent

Ethylene diacetate or methyl propyl acetate

Table 1 - Composition Properties

Test	Properties
Solids (750°C) [%]	85.5 - 88.0
Viscosity (Pa.S) [Brookfield RVT, spindle#14, 10 rpm, 25°C]	15 - 30
Coverage (cm ² /g)	36
(sqft/g/mil)	500
Density (g/cc)	6.04
Thinner	DuPont™ 8210

Table 2 - Typical Physical Properties on 5-mil Polyester Film

Test	Properties
Sheet Resistivity (mΩ/sq/mil)	500
Adhesion (Tape test) (B)	5
Abrasion Resistance, Pencil Hardness (H) (ASTM D3363-74)	2
Solder	Not Recommended

Tables 1 and 2 show 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 products, please visit our website.

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CAUTION: Do not use in medical applications involving permanent implantation in the human body. For other medical applications, see "DuPont Medical Caution Statement," H-50102-5 and "DuPont Policy Regarding Medical Applications" H-50103-5.

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