

DuPont BQ221

CARBON CONDUCTIVE COMPOSITION

Technical Data Sheet

Product Description

DuPont BQ221 is a highly active carbon conductor designed as a working electrode for high sensitivity biosensor. It may be used on both PET and Polycarbonate substrates

Product Benefits

- High Sensitivity
- Low Resistivity
- Compatible with variety of silver conductors

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

8 - 12 microns

Clean-up Solvent

Ethylene diacetate or methyl propasol acetate

Table 1
Composition Properties

Test	Properties
Solids (150°C) [%]	32.0 - 34.0
Viscosity (Pa.S) [Brookfield RVT, spindle#14, 10rpm, 25°C]	35 - 85
Coverage (cm ² /g @ 12.5 microns)	200
Thinner	DuPont 8260

Table 2
Typical Physical Properties on 5-mil Polyester Film

Sheet Resistivity (Ω/sq/mil)	< 100
PET, untreated (B)	5
Abrasion Resistance (H), Pencil Hardness [ASTM D3363-74]	4
Soldering	Not Recommended

Table 1 & 2 show anticipated typical physical properties for DuPont BQ221 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

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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