

DuPont BQ242

CARBON CONDUCTIVE COMPOSITION

Technical Data Sheet

Product Description

DuPont BQ242 is a polymer thick film (PTF) carbon ink designed for carbon working electrodes in amperometric biosensors. It is suitable for biosensor manufacture by screen-printing on polyester film substrates.

Product Benefits

- High electrochemical activity suitable for uses with a variety of electron-transfer mediators.
- High conductivity
- Excellent adhesion to polyester film
- Superior carbon electrode wettability
- Halogen-free polymeric binder
- Good ink rheology for screen printing

Processing Printing

DuPont BQ242 should be mixed thoroughly with a plastic or stainless steel spatula before use. Typical printing thickness: 0.8 mil on 180 mesh screen, 0.5 mil on 280 mesh screen

Drying

Allow drying times of 2-5 minutes for well-ventilated ovens or conveyor dryers at 130°C. For box oven drying, allow 5-15 minutes at 130°C.

Clean-up Solvent

Ethylene glycol diacetate or other glycol methyl ether acetate.

Composition Properties

Test	Properties
Solids (150°C) (%)	38 - 40
Viscosity (Pa.S) [Brookfield HBT, spindle#14, 10rpm, 25°C]	30 - 70
Coverage (cm ² /g @ 0.5 mil)	250 - 280
Density (g/cc)	1.23
Thinner	DuPont 8240
Typical Physical Properties	
Sheet Resistivity (Ω/sq/mil@0.5 mil)	20 - 25
Cross Hatch Adhesion (B)	5

This table shows anticipated typical physical properties for DuPont BQ242 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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