Micromax™ BQ221

Microcircuit and Component Materials

Carbon Conductive Composition

Micromax™ 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

Product information

Solvent or thinner	Micromax™ 8260	
Solid content	32 - 35[1]	%

[1]: 150°C

Rheological properties

Viscosity	35 - 85[2]	Pa.s

[2]: Brookfield RVT, spindle#14, 10rpm, 25ºC

Application technique

Mask mesh	200[3]	
Drying time	5 - 10[4]	min
Drying temperature	130[4]	°C
Theoretical coverage	200[5]	cm^2/g
Recommended film thickness, dried	8 - 12[3]	µm

[3]: Typical circuit line

[4]: Box oven

[5]: @12.5µm

Electrical properties

Surface resistivity	≤100[6]	mOhm per square

[6]: at 25.4µm

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Storage and stability

Shelf life	6[7] months

[7]: in unopened containers, from date of shipment, at room temperature (0<30 °C)

Additional information

How to use

Processing

- Substrates
  - PET and Polycarbonate
- Screen types
  - Polyester, stainless steel
- Printing
  - Reel-to-reel, semi-automatic or manual
- Typical circuit line thickness
  - Printed with 200-mesh stainless steel screen : 8 - 12 µm
- Work life
  - >1 hour
- Drying
  - Box oven : 130 °C for 5-10 min
  - Reel-to-reel : 140 °C for 1 min
- Clean-up solvent
  - Ethylene diacetate or Methyl propasol acetate.

Properties

Typical Physical Properties on 12.7µm Polyester Film

Test	Properties
PET, untreated (B)	5
Abrasion Resistance, Pencil Hardness (H) (ASTM D3363-74)	4
Soldering	Not Recommended

Information in this datasheet shows anticipated typical physical properties for Micromax™ 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

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Micromax™ 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. 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 Safety Data Sheet (SDS).

Revised: 2023-03-08 Source: Celanese Materials Database