Micromax™ BQ331

Electronic Inks and Pastes

Gold Conductive Composition

Micromax™ 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

Product information

Solvent or thinner	Micromax™ 8210	
Density	6.04	g/cm³
Solid content	85.5 - 88[1]	%

[1]: 750 °C

Rheological properties

Viscosity	30 - 85[2]	Pa.s

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

Application technique

Mask mesh	200[3]	
Drying time	5 - 10[4]	min
Drying temperature	130[4]	°C
Theoretical coverage	36	cm²/g
Recommended film thickness, dried	12 - 15[5]	µm

[3]: Screen Types: Stainless steel

[4]: box oven

[5]: 200-mesh stainless steel

Typical mechanical properties

Adhesion, pull tape	no material transfer[6]	class

[6]: on 5-mil polyester film

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Electrical properties

Surface resistivity	600[7]	mOhm per square

[7]: at 25µm thickness, on 127µm polyester film

Storage and stability

Shelf life	6[8]	months

[8]: in unopened containers, from date of shipment, at temperature <25°C (>0°C)

Additional information

How to use

Processing

- Screen types
  - Polyester, stainless steel
- Printing
  - Reel-to-reel, semi-automatic or manual
- Typical circuit line thickness
  - Printed with 200-mesh stainless steel screen
  - 12 - 15 µm
- Work life
  - >1 hour
- Clean-up solvent
  - Ethylene diacetate or Methyl propasol acetate
- Drying
  - Box oven : 130°C for 5-10 minutes
  - Reel-to-reel : 140°C for 1 minute

Properties

Typical Physical Properties on 5-mil Polyester Film

Test	Properties
Abrasion Resistance, Pencil Hardness (ASTM D3363-74) [H]	2
Soldering	Not Recommended

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

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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.

Safety and handling

For safety and handling information pertaining to this product, read Safety Data Sheet (SDS).

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