

# 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 terephthalate (PET) substrates

### Product information

Solvent or thinner	Micromax™ 8210
Density	6.04 g/cm <sup>3</sup>
Solid content	85.5 - 88 <sup>[1]</sup> %
[1]: 750°C	

### Rheological properties

Viscosity	30 - 85 <sup>[2]</sup> Pa.s
[2]: Brookfield RVT, #14 spindle, 10 rpm, 25°C	

### Application technique

Mask mesh	200 <sup>[3]</sup>
Drying time	5 - 10 <sup>[4]</sup> min
Drying temperature	130 <sup>[4]</sup> °C
Theoretical coverage	36 cm <sup>2</sup> /g
Recommended film thickness, dried	12 - 15 <sup>[5]</sup> µm
[3]: Screen Types: Stainless steel	
[4]: box oven	
[5]: 200-mesh stainless steel	

### Typical mechanical properties

Adhesion, pull tape	no material class transfer <sup>[6]</sup>
[6]: on 5-mil polyester film	

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### Electrical properties

Surface resistivity 600<sup>[7]</sup> mOhm per square

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

### Storage and stability

Shelf life 6<sup>[8]</sup> 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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