

Micromax™ 5065

Microcircuit and Component Materials

Silver Conductor

Micromax™ 5065 silver conductor was developed for the Printed Electronics market and is particularly well suited for RFID applications where low as-printed resistance is a requirement. This product uses a unique combination of Ag powder and resin technology providing superior conductivity and performance. This composition is solvent-based and was designed to be screen printed in semi-automatic or high volume reel-to-reel applications.

Product benefits

- Good printability
- Superior RFID performance in UHF and HF range (with low and high track thickness respectively)
- Outstanding electrical conductivity
- High paste coverage
- Excellent adhesion to various substrates

Product information

Solvent or thinner	Micromax™ 8260
Solid content	68 - 71 %

Rheological properties

Viscosity	10 - 20 Pa.s
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Application technique

Mask mesh	200
Drying time	10 ^[1] min
Drying temperature	130 ^[1] °C
Theoretical coverage	170 ^[2] cm ² /g
Recommended film thickness, dried	10 - 12 µm

[1]: Box oven

[2]: using screen type 200 mesh polyester, printed on 125µm PET film

Electrical properties

Surface resistivity	≤10 ^[3] mOhm per square
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[3]: @25µm , Printed on 125µm PET film

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Storage and stability

Shelf life

6^[4] months

[4]: in unopened containers, from date of shipment, at room temperature (<25°C)

Additional information

How to use

Processing

- **Substrates**
 - Polyester, paper, card
- **Screen types**
 - Polyester, stainless steel
- **Printing**
 - Reel-to-reel, semi-automatic, manual.
- **Typical circuit line thickness**
 - Printed with 200-mesh polyester screen
 - 10 - 12 µm
- **Clean-up solvent**
 - Ethylene diacetate or Methyl propasol acetate
- **Drying**
 - Box oven : 130°C for 10 min
 - Reel-to-reel : 140°C for 2 min
 - Dry in a well-ventilated box oven or belt/conveyor furnace. Air flow and extraction rates should be optimized to ensure complete removal of solvent from the paste. A strong air flow may help to reduce the drying temperature/time considerably and to achieve the lowest as-printed resistance.

Properties

Typical Physical Properties Printed on 125µm PET film

Test	Properties
Abrasion Resistance (H) [ASTM pencil hardness]	5
Adhesion (B) [ASTM x-hatch, no material removal]	5

Information in this datasheet shows anticipated typical physical properties for Micromax™ 5065 based on specific controlled experiments in our labs and are not intended to represent the product specifications, details of which are available upon request.

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Storage and shelf life

Containers should be stored, tightly sealed, in a clean, stable environment at room temperature (<25 °C). Shelf life of material in unopened containers is six months from date of shipment. Some settling of solids may occur and compositions should be thoroughly mixed prior to use.

Safety and handling

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

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