

Micromax™ 5065

Electronic Inks & Pastes

PRODUCT DESCRIPTION

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

READ ENTIRE TECHNICAL DATA SHEET BEFORE USING THIS PRODUCT

PRODUCT INFORMATION

General Properties	Value Unit
Application	Membrane switch conductor
Solvent or thinner	Micromax™ 8260
Solid content	68 to 71 %

TECHNICAL DATA

Rheological Properties	Value Unit
Viscosity ¹	10 to 20 Pa.s

Application Technique	Value	Unit
Mask mesh	200	
Drying time ²	10	min
Drying temperature ³	130	°C
Theoretical coverage ⁴	170	cm ² /g
Recommended film thickness	10 to 12	µm
Mechanical Properties	Value	Unit
Adhesion ⁵	5B	class
Electrical Properties	Value	Unit
Resistivity ⁶	≤10	mOhm per square
Storage and Stability	Value	Unit
Shelf life ⁷	6	months

¹0.5xRVT, spindle#14, 10rpm

²box oven

³box oven

⁴using screen type 200 mesh polyester, printed on 125µm PET film

⁵ASTM x-hatch, no material removal

⁶@25µm, Printed on 125µm PET film

⁷in unopened containers, from date of shipment, stable environment at room temperature between 5°C - 30°C

PROCESSING GUIDELINES

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.

Typical Physical Properties Printed on 125µm PET film

Test	Properties
Abrasion Resistance, Pencil Hardness (ASTM) [H]	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.

Storage and shelf life

Containers should be stored, tightly sealed, in a clean, stable environment at room temperature between 5°C - 30°C. Shelf life of material in unopened containers is 6 months from date of shipment. Some settling of solids may occur and compositions should be thoroughly mixed prior to use.

Storage conditions on the product data sheets are intended to represent long-term material storage recommendations and not a shipping or temperature-at-receipt requirement.

Transportation: Under normal shipping conditions, without temperature control, Micromax™ products are not expected to exhibit a change in quality or fitness for use. Should extraordinary events result in extended transportation periods, Micromax™ recommends customers confirm products remain suitable for the intended application.

Safety and handling

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

SAFETY & WARNING

It is recommended that the company/operator read and review the Safety Data Sheets for the appropriate health and safety warnings before use.

Safety Data Sheets are available.

WASTE TREATMENT

Prior to using any recommendations or suggestions for waste treatment, the user is required to know the appropriate local/state/federal regulations for on-site or off-site treatment which may

require permits. If there is any conflict regarding our recommendations, local/state/federal regulations take precedence.

CONTACT INFORMATION

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Also read carefully warning and safety information on the Safety Data Sheet. This data sheet contains technical information required for safe and economical operation of this product. READ IT THOROUGHLY PRIOR TO PRODUCT USE. Emergency safety directory assistance: US 1 202 464 2554, Europe + 44 1235 239 670, Asia + 65 3158 1074, Brazil 0800 707 7022 and 0800 172 020, Mexico 01800 002 1400 and (55) 5559 1588

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