

Micromax™ 5524

Electronic Inks and Pastes

Silver Carbon Conductive Composition

Micromax™ 5524 silver/carbon is a stable, one-part conductor specifically designed for high temperature applications where excursions to 105°C are required. The material has been used on flatbed and reel-to-reel manufacturing lines. When used with crossover dielectric such as Micromax™ 5018, a complete materials set is available for appliance circuitry. A heat seal composition (Micromax™ 5036) may be used, if desired.

Product benefits

- Excellent high temperature stability

Product information

Solvent or thinner	Micromax™ 3610
Solid content	53 - 56 ^[1] %
Maximum Service Temperature	105 ^[2] °C
[1]: 750°C	
[2]: on 5-mil Polyester Film	

Rheological properties

Viscosity	200 - 425 ^[3] Pa.s
[3]: Brookfield HAT, #14 spindle, 5 rpm, 25°C	

Application technique

Mask mesh	325 ^[4]
Drying time	5 - 6 ^[5] min
Drying temperature	120 ^[5] °C
Theoretical coverage	140 - 300 ^[6] cm ² /g
Recommended film thickness, dried	8 - 9 µm
[4]: Screen Types: Stainless steel	
[5]: box oven	
[6]: dependent on print thickness	

Typical mechanical properties

Adhesion, pull tape	no material class transfer ^[7]
[7]: 3M Scotch Tape #600	

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Electrical properties

Surface resistivity 15 - 35^[8] mOhm per square

[8]: at 25µm

Storage and stability

Shelf life 6^[9] months

[9]: in unopened containers, from date of shipment, at temperature <25°C

Additional information

How to use

Processing

- **Screen types**
 - Polyester, stainless steel
- **Printing**
 - Reel-to-reel, semi-automatic, manual
- **Typical circuit line thickness**
 - Printed with 325-mesh stainless steel screen
 - 8 - 9 µm
- **Work life**
 - > 1 hour
- **Clean-up solvent**
 - Ethylene glycol diacetate
- **Drying**
 - Box oven : 120°C for 5-6 minutes
 - Reel-to-reel : 140°C for 1 minutes

Properties

Typical Physical Properties on 5-mil Polyester Film

Test	Properties
Abrasion Resistance, Pencil Hardness (ASTM D3363-74) [H]	3
Soldering	Not Recommended

Information in this datasheet shows anticipated typical physical properties for Micromax™ 5524 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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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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