

# Micromax™ 5707

## Electronic Inks and Pastes

### Crossover Dielectric

Micromax™ 5707 is a screen printable dielectric for use in single layer circuit as a crossover between conductor lines.

### Product benefits

- Compatible with most silver/palladium and gold conductors
- High Reliability

### Product information

Solvent or thinner Micromax™ 8672

### Rheological properties

Viscosity 150 - 200<sup>[1]</sup> Pa.s

[1]: Brookfield HAT, UC&SP, 10 rpm, 25°C

### Application technique

Mask mesh	200 - 325
Drying time	10 - 15 min
Drying temperature	150 °C
Theoretical coverage	60 - 70 cm <sup>2</sup> /g
Recommended film thickness, fired	45 - 50 <sup>[2]</sup> μm
Leveling time	5 - 10 min

[2]: 3 fired layers, 325-mesh screen, (2 fired layers thickness 40-45μm, using 200-mesh screen)

### Electrical properties

Dielectric Constant	8 - 10
Dissipation Factor	≤0.5 %
Insulation Resistance, DC	≥1E12 Ohm
Breakdown Voltage	≥400 V

[3]: at 100 VDC

[4]: VDC at 25μm

### Storage and stability

Shelf life 6<sup>[5]</sup> months

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

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### Additional information

How to use

### Processing

- **Substrates**
  - Properties are based on test using 96% alumina substrates. Substrates of other compositions and from various manufacturers may result in variations in performance properties.
- **Printing**
  - Print individual dielectric layer with a 200 or 325-mesh stainless steel screen. The combined thickness of the fired dielectric should be at least 40µm. Three separate printing of Micromax™ 5707 may be necessary to achieve this fired thickness when 325-mesh screens are used. It will print up to 25cm/s. Use a double wet squeegee pass to minimize pinholes.
- **Drying**
  - Allow wet print to level for 5-10 minutes at room temperature. Dry 10-15 minutes at 150°C.
- **Firing**
  - Each dielectric print should be fired separately in a belt furnace. Use a 60-minute cycle with a peak temperature of 850°C for 10 minutes.

### Properties

- Information in this datasheet shows anticipated typical physical properties for Micromax™ 5707 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 (<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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