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[1]	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^2/g
Recommended film thickness, fired	45 - 50[2]	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[5]	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).

Celanese
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