Micromax™ 5951

Electronic Inks and Pastes

Multilayer Dielectric

Micromax™ 5951 Dielectric is a multilayer interconnect dielectric. Micromax™ 5951 is part of a thick film ink system for building smaller multilayer interconnect circuits with up to seven metal levels.

Product information

Solvent or thinner	Micromax™ 9179

Rheological properties

Viscosity	220 - 295[1]	Pa.s

[1]: Brookfield 2xHAT, UC&SP, 10 rpm, 25°C

Application technique

Mask mesh	325	
Drying time	15	min
Drying temperature	150	°C
Recommended film thickness, fired	40 - 60[2]	µm
Leveling time	5 - 10	min

[2]: 3 fired layers

Electrical properties

Dielectric Constant	6 - 10	
Dissipation Factor	≤0.5	%
Insulation Resistance, DC	≥1E11	Ohm
Breakdown Voltage	≥700	V

[3]: at 100VDC

[4]: VDC, at 25.4µm

Storage and stability

Shelf life	6[5]	months

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

Additional information

How to use

Processing

- Printing
  - Use a 325-mesh screen. Print, dry, and fire three layers of dielectric (via filling after the first and third layers) to achieve a total dielectric thickness of 40-50µm between metal levels. Single wet-pass printing is possible.

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- Drying
  - Allow print to level for 5-10 minutes before drying at 150°C for 15 minutes.
- Firing
  - Fire each dielectric print after drying. Use a 30-minute profile with an 850°C peak temperature held for 10 minutes.

Properties

Typical Physical Properties

Test	Properties
Via Retention	12 mil nominal

Information in this datasheet shows anticipated typical physical properties for Micromax™ 5951 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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