

Micromax™ 9507

Electronic Inks and Pastes

Crossover Dielectric

Micromax™ 9507 is a screen printable dielectric for use in single layer circuits as a crossover between conductor lines. It can be printed up to 25 cm/sec and fires to a smooth, pinhole-free surface.

Product information

Solvent or thinner Micromax™ 8672

Rheological properties

Viscosity 150 - 250^[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 ^[2] cm ² /g
Shrinkage, fired	40 - 45 %
Leveling time	5 - 10 min

[2]: base on 50µm wet film thickness

Electrical properties

Dielectric Constant	8 - 10
Dissipation Factor	≤0.5 %
Insulation Resistance, DC	≥1E12 ^[3] Ohm
Breakdown Voltage	≥400 ^[4] 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

Additional information

How to use

Processing

• Substrates

- Properties are based on testing using 96% alumina substrates. Substrates of other compositions and from various manufacturers may result in variations in performance properties.

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• Printing

- Print individual dielectric layers 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™ 9507 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

- All values reported here are results of experiments in our laboratories intended to illustrate product performance potential with a given experimental design. They are not intended to represent the product's specifications.

Other system components

- Micromax™ 5715 Gold Conductor
- Micromax™ 5727 Via Fill Gold Conductor
- Micromax™ 5725/9910 Aluminum Wire Bondable Gold Conductors
- Micromax™ 4596 Solderable Gold Conductor
- Micromax™ 5704 Multilayer Dielectric
- Micromax™ Series 17G High Reliability Resistors

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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Page: 3 of 3

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