

Micromax™ 5951

Electronic Inks & Pastes

PRODUCT DESCRIPTION

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.

READ ENTIRE TECHNICAL DATA SHEET BEFORE USING THIS PRODUCT

PRODUCT INFORMATION

General Properties	Value Unit
Application	High reliability dielectric
Solvent or thinner	Micromax™ 9179

TECHNICAL DATA

Rheological Properties	Value Unit
Viscosity ¹	220 to 295 Pa.s

Application Technique	Value Unit
Mask mesh	325
Drying time	15 min
Drying temperature	150 °C
Recommended film thickness ²	40 to 60 µm
Leveling time	5 to 10 min

Electrical Properties	Value Unit
Dielectric Constant	6 to 10
Dissipation Factor	≤0.5 %

Electrical Properties	Value	Unit
Insulation Resistance ³	≥1E11	Ohm
Breakdown Voltage ⁴	≥700	V

Storage and Stability	Value	Unit
Shelf life ⁵	6	months

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

²3 fired layers

³at 100VDC

⁴VDC, at 25.4µm

⁵in unopened containers, from date of shipment, stable environment at room temperature between 5°C - 30°C

PROCESSING GUIDELINES

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.

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.

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 between 5°C - 30°C. Shelf life of material in unopened containers is 6 months from date of shipment. Some settling of solids may occur and compositions should be thoroughly mixed prior to use.

Storage conditions on the product data sheets are intended to represent long-term material storage recommendations and not a shipping or temperature-at-receipt requirement.

Transportation: Under normal shipping conditions, without temperature control, Micromax™ products are not expected to exhibit a change in quality or fitness for use. Should extraordinary events result in extended transportation periods, Micromax™ recommends customers confirm products remain suitable for the intended application.

Safety and handling

For safety and handling information pertaining to this product, read Safety Data Sheet (SDS).

SAFETY & WARNING

It is recommended that the company/operator read and review the Safety Data Sheets for the appropriate health and safety warnings before use.

Safety Data Sheets are available.

WASTE TREATMENT

Prior to using any recommendations or suggestions for waste treatment, the user is required to know the appropriate local/state/federal regulations for on-site or off-site treatment which may require permits. If there is any conflict regarding our recommendations, local/state/federal regulations take precedence.

CONTACT INFORMATION

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Also read carefully warning and safety information on the Safety Data Sheet. This data sheet contains technical information required for safe and economical operation of this product. READ IT THOROUGHLY PRIOR TO PRODUCT USE. Emergency safety directory assistance: US 1 202 464 2554, Europe + 44 1235 239 670, Asia + 65 3158 1074, Brazil 0800 707 7022 and 0800 172 020, Mexico 01800 002 1400 and (55) 5559 1588

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