

Micromax™ 5427

Electronic Inks & Pastes

PRODUCT DESCRIPTION

Platable Silver/Palladium Termination for Chip Resistor Applications

Micromax™ 5427 is a plateable silver/palladium termination specifically developed for chip resistor application requiring ultra-precision and anti-sulfuration performances.

Product benefits

- Compatible with Micromax™ XL resistor series for ultra-precision grade
- Good TCR control on ≥ 0402 chip sizes and/in lower resistivity range
- Solid anti-sulfuration performance with 10% palladium content as paste
- Dense fired film
- High acid resistance and post-plating adhesion
- Good solder wettability
- Cadmium, Nickel oxide and Phthalate free*

*Cadmium, Nickel oxide and Phthalate 'free' as used herein means that cadmium, lead, nickel, and phthalate are not intentional ingredients in and are not intentionally added to the referenced product. Trace amounts however may be present.

READ ENTIRE TECHNICAL DATA SHEET BEFORE USING THIS PRODUCT

PRODUCT INFORMATION

General Properties	Value Unit
Application	Termination
Solvent or thinner	Micromax™ 8250(T)
Solid content ¹	74.8 to 76.8 %

TECHNICAL DATA

Rheological Properties	Value Unit
Viscosity ²	200 to 280 Pa.s

Application Technique	Value	Unit
Mask mesh	325	
Mask emulsion	15	µm
Drying time	10	min
Drying temperature	150	°C
Recommended film thickness	18 to 22	µm
Leveling time	5 to 10	min
Electrical Properties	Value	Unit
Resistivity ³	≤18	mOhm per square
Storage and Stability	Value	Unit
Shelf life ⁴	6	months

¹1050°C

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

³@10µm

⁴in unopened containers, from date of shipment, stable environment at room temperature between 5°C - 30°C

PROCESSING GUIDELINES

Substrates

Reported properties are based on tests with 96% alumina substrates. Substrates of other compositions may yield variations in performance properties.

Printing

Properties are based on Micromax™ 5427 printed to 20±2µm dried thickness using 325-mesh stainless steel screen with an emulsion thickness of approximately 15µm.

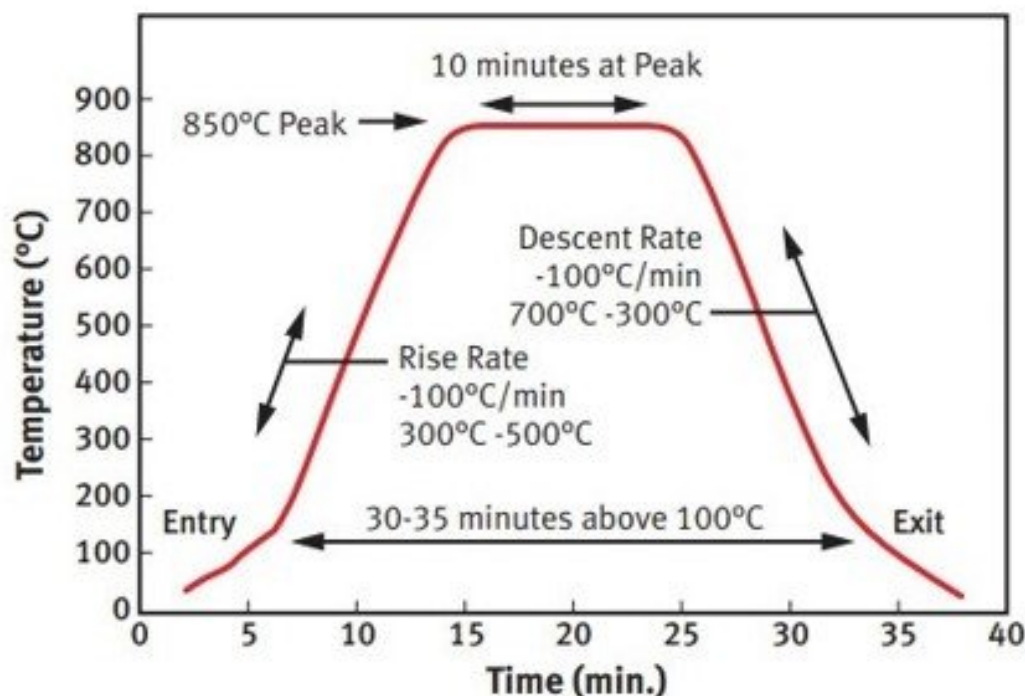
Drying

Prints should be allowed to level at room temperature for 5 to 10 minutes and then dried for 10 minutes at 150°C.

Firing

Properties are based on a 30-minute firing cycle with 10 minutes at a peak of 850°C.

Typical 850°C 30 Minute Firing Profile



Properties

Information in this datasheet shows anticipated typical physical properties for Micromax™ 5427 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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