Micromax™ 5465

Electronic Inks and Pastes

Platable Termination For Chip Resistors Applications

Specially developed for chip resistors applications, Micromax™ 5465 is a platable Leadfree*, Cadmium-free* silver/palladium C1 termination that meets the needs for low cost, high performance and green product.

Product benefits

- Cadmium, Lead, Nickel and Phthalate free*
- High acid resistance and platable
- Dense fired film
- Fast firing, 850 °C/30min profile
- Cost effective silver/palladium composition
- Compatible with Micromax™ resistors 00X1Z and 0FxxA resistors series

*Cadmium, Lead, Nickel 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.

Product information

Solvent or thinner	Micromax™ 4553	
Solid content	71.8 - 73.8[1]	%
Fineness Of Grind, 4th scratch	≤20	µm
Fineness Of Grind, 50% point	≤10	µm

[1]: 1050 °C

Rheological properties

Viscosity	210 - 290[2]	Pa.s

[2]: Brookfield HBT, SC4-14/6R, 10 rpm, 25 °C

Application technique

Mask mesh	325	
Mask emulsion	15	µm
Drying time	15	min
Drying temperature	150	°C
Recommended film thickness, dried	16 - 20	µm
Leveling time	10 - 15	min

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Electrical properties

Surface resistivity	≤10[3]	mOhm per square

[3]: at 12µm

Storage and stability

Shelf life	6[4]	months

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

Additional information

How to use

Processing

- Substrates
  - Properties were measured on 96% Alumina substrates. Substrates of other compositions and from various manufacturers may result in variation in performance properties.
- Printing
  - Properties are based on Micromax™ 5465 printed to 18±2µm dried thickness using 325 mesh stainless steel screen with an emulsion thickness of approximately 15µm.
  - C1 termination Micromax™ 5465 should be thoroughly mixed before use. This is best achieved by slow, gentle hand stirring with a clean, burr-free spatula (flexible plastic or stainless steel) for 1-2 minutes. Care must be taken to avoid air bubble entrapment.
- Drying
  - Allow the wet print to level for 10-15 minutes at room temperature. Dry for 15 minutes at 150°C.
- Firing
  - Dried prints should be fired in a belt furnace. Use a 30-minutes cycle with a peak temperature of 850°C x 10 minutes.

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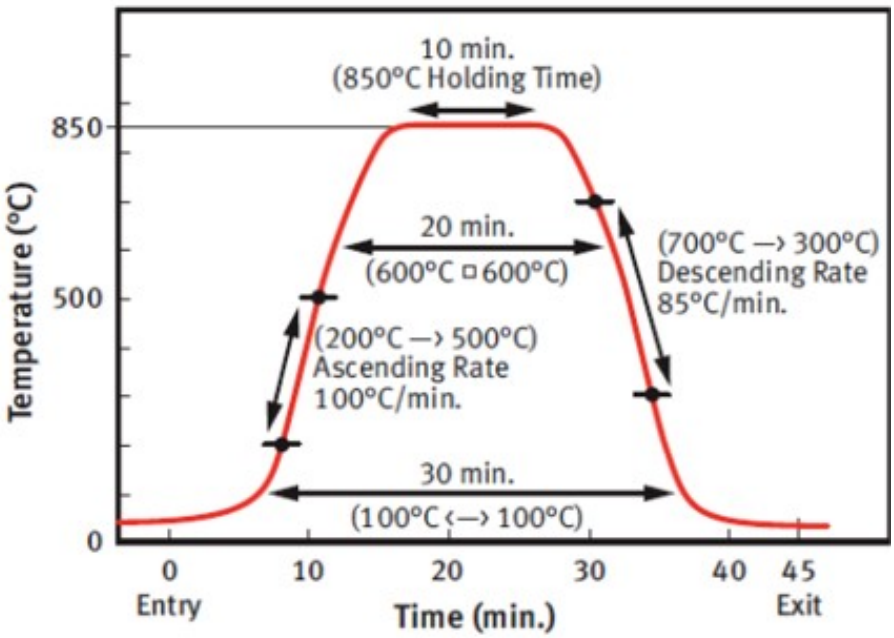
Micromax™ Standard Profile 850°C x 10 min., 30 min.

(Micromax™ QA Profile)



Properties

- Information in this datasheet shows anticipated typical physical properties for Micromax™ 5465 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

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Sheet (SDS).

Revised: 2023-06-26 Source: Celanese Materials Database