Micromax™ 5477

Microcircuit and Component Materials

Glass Encapsulant

Micromax™ 5477 is a screen printable, laser trimmable, air-fired G1 glass encapsulant for chip resistors.

Product benefits

- Optimized viscosity for higher printing speed
- Acid resistant - withstands acidic nickel plating conditions
- G1 encapsulant for chip resistors
- Green colored, laser trimmable
- Lead, Cadmium, Nickel and Phthalate free*

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

Product information

Solvent or thinner	Micromax™ 8218	
Solid content	63 - 69	%

Rheological properties

Viscosity	120 - 180[1]	Pa.s

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

Application technique

Mask mesh	200 - 325[2]	
Drying time	10	min
Drying temperature	150	°C
Recommended film thickness, dried	16 - 18[3]	µm
Recommended film thickness, fired	8 - 9[3]	µm
Leveling time	5 - 10	min

[2]: stainless steel

[3]: 250-mesh stainless steel screen

Storage and stability

Shelf life	6[4]	months

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

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Additional information

How to use

Processing

- Screen types
  - 200 - 325 wire/inch stainless steel mesh
  - 77 - 120 thread/cm polyester mesh
- Printing
  - Print to a dried thickness of 16-18µm with a 250-mesh stainless steel screen to give a fired thickness of 8-9µm. Encapsulant composition Micromax™ 5477 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
  - Prints should be allowed to level at room temperature for 5-10 minutes and then dried for 10 minutes at 150°C.
- Firing
  - Dried prints should be fired in a belt furnace. Use a 30-minute cycle with a peak temperature of 600-620°C for 5-10 min.

Properties

- Information in this datasheet shows anticipated typical physical properties for Micromax™ 5477 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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