Micromax™ QP165

Electronic Inks and Pastes

Copper Conductor

Micromax™ QP165 is a screen printable, nitrogen fireable copper conductor composition. It is used as a overprint conductor in high density multilayer ceramic printed wiring boards. It provides excellent solderability without burnishing when printed over other Micromax™ copper conductors. It should not be used alone as a top layer conductor on dielectric or directly on alumina.

Product information

Solvent or thinner	Micromax™ 9450

Rheological properties

Viscosity	200 - 300[1]	Pa.s

[1]: Brookfield HBT, UC&SP, 10 rpm, 25 °C

Application technique

Mask mesh	325	
Mask emulsion	10 - 15	µm
Drying time	10 - 15	min
Drying temperature	120	°C
Theoretical coverage	70 - 80	cm^2/g
Leveling time	5 - 10	min

Storage and stability

Shelf life	6[2]	months

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

Additional information

How to use

Processing

- Printing
  - A 325 mesh stainless steel screen with a 10-15µm (0.4 - 0.6mil) emulsion thickness is recommended. Printing speeds up to 20 cm/s (8 in/s) can be used.
- Drying
  - Allow the wet print to level for 5-10 minutes at room temperature. Dry 10-15 minutes at 120 °C in a nitrogen atmosphere. Care must be taken, however, to ensure that the prints return to room temperature before being exposed to air to avoid oxidation.
- Firing
  - Dried prints of Micromax™ QP165 should be fired in a belt

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furnace with a nitrogen atmosphere containing less than 10 ppm oxygen. Use a 55 minute profile with a peak temperature of 900°C for 10 minutes.

Properties

Typical Physical Properties

Test	Properties
Solder Acceptance 63Sn/37Pb@ 240°C, Alpha 611 flux	Excellent

Information in this datasheet shows anticipated typical physical properties for Micromax™ QP165 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).