DM-CUP-5100

DYCOTEC MATERIALS

Product Description

Dycotec DM-CUP-5100 nanocopper paste is designed for rotary and flat-bed screen printing for versatile use in electronic applications. The paste is designed to be rapidly cured using Xenon flash and laser systems.

Product Benefits

- Excellent electrical conductivity
- Good adhesion
- Compatibility with a broad range of light based sintering techniques

Paste Preparation

Gently stir the paste before use to ensure the product is well mixed. Be careful not to introduce air bubbles. Do not replace used ink in the container. This ink is designed for screen printing processes. Once printed, the paste should be dried at 60-80˚C.

Properties of the Uncured Paste

Test	Properties
Solids	68-72%
Viscosity (50 s^{-1}, cone & plate)	5-10 Pa.s at 25˚C
Thinner	For slight adjustments in viscosity use DM-CUP-5100S-DT
Substrate compatibility	Polyimide
Typical Print Thickness	4-5 µm
Coverage	210 cm^2/g at 10 µm final print thickness

Paste Processing Conditions

Test	Typical Properties
Screen	460 PET mesh, 3 µm emulsion
Squeegee Type	80A Shore
Line/Space (µm)	100/100
Print Speed	25 mm/s

Clean-Up

Equipment can be cleaned using benzyl alcohol or IPA

Paste Curing Conditions

It is recommended that printed structures should be laser or flash lamp processed shortly after drying.

Test	Properties
Sintering Technique Compatibility	Flash lamp, Laser (>800nm, ~4 J/cm^2 as guidance only)

Properties of the Cured Paste

Test	Properties
Adhesion	4B for PI
Volume Resistivity	<20 µΩ.cm
Resistivity	<12 mΩ/□/mil for polyimide

Storage and Shelf-life

Containers should be stored in a fridge with lids tightly sealed. We cannot assume responsibility for an ink that has not been stored in appropriate conditions or where the ink has been contaminated following use. Please ensure the paste is removed from the fridge and left to stand to ensure paste temperature is greater than 15°C prior to use.

Safety and Handling

For safe use of this product, please review relevant material and safety datasheet (MSDS).

For more information, please contact:

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