



AG-1074 Silver Conductive Ink

Description

AG-1074 Silver Conductive Ink is a silver-filled ink designed for pad printing applications. The co-solvent system allows for longer press time and more consistent electrical properties during the course of a print run.

Features

- Pad printable
- Excellent adhesion & crease resistance
- Compatible with polyester, polyimide & other plastic substrates, as well as metal surfaces
- Extremely tough & scuff resistant
- Compatible with our UV curable dielectrics, conductive epoxy adhesives & UV curable component encapsulants

TYPICAL PROPERTIES

Appearance	Silver paste
Viscosity: Brookfield DV-III Ultra, 25°C, SC4-21 Spindle @ SR 20 in cP	As tested
Hegman Gauge	≤50 μm
Surface Resistivity	< 0.050 Ω/square/mil
Total % NV Solids	58.00 - 62.00%

Application Guidelines

AG-1074 will settle quickly when it is stored in sealed containers over a period of time. It is essential to always mix the material thoroughly before use to redisperse any settled silver particles and to return the ink to a more desirable viscosity. Continuous agitation during application is recommended. If the silver settles to a hard pack in the container, then aggressive mixing is required to break up the silver chunks and redisperse them in the liquid.



Drying

Drying is recommended for 3-5 minutes at 80°C, depending upon oven heat profile, air flow, humidity and print thickness. Room temperature cure is possible but will take longer.

It is essential that all residual solvent be removed from this ink once it is applied. Incomplete drying will cause the ink to appear dry on the surface while trapping solvent underneath the surface. Over time, this trapped solvent will migrate out of the ink, and can cause adhesion problems with any material, such as dielectrics, applied over the ink.

Evaluate the point-to-point resistance along one of the conductive paths after one pass through the drying oven or one cycle in a batch-drying oven. Run the substrate through another drying cycle. Measure the point-to-point resistance again along the same path and compare it to the original reading. If the resistance decreases by less than 10%, then the ink is essentially dry after the first drying cycle or pass through the oven. If the resistance decreases by more than 10%, then more drying time is required to completely remove the solvent.

Thinning and Cleanup

Use MEK or other suitable solvents for cleaning and thinning. Do not allow ink to set inactive for any length of time as settling will occur. Always check the viscosity of ink that has been recovered from inactivity and add small amounts of solvent while mixing thoroughly to restore viscosity. Solvent can be added to reclaim thickened ink as long as the ink has not dried and

Storage and Shelf Life

Shelf life is 6 months in unopened container, if stored in a dry area at 25°C room temperature. Do not use product after the expiration date.

Disposal

The material and its container must be disposed in accordance with all local, state, federal and/or international regulations.

Handling

Consult Safety Data Sheet (SDS) for details on the handling procedures and product hazards prior to use. If you have any questions regarding handling precautions or product hazard, please email productsafety@kayakuAM.com.

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