



## PRELIMINARY TECHNICAL DATA SHEET

### AG-1074 SILVER CONDUCTIVE INK

AG-1074 is 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.

#### DESCRIPTION

- Pad printable, silver filled, electrically conductive ink
- Extremely tough, scuff resistant, crease resistant and has excellent adhesion to polyester, polyimide and most other polymer substrates as well as metal surfaces
- Compatible with our UV curable dielectrics, all of our conductive epoxy adhesives and our UV curable component encapsulants and conformal coatings

#### TYPICAL PROPERTIES

Appearance	Thixotropic silver colored paste
Viscosity - Brookfield DV III SC4-21 spindle, 20 shear @25°C	300 +/- 50 cps
Drying Schedule	3 to 5 minutes at room temperature
Total % NV Solids	60% ± 2%
Hegman Gauge	<50.0 μ
Surface Resistivity	< .050 Ω/square/mil
Shelf Life	6 months in unopened container

# AG-1074 SILVER CONDUCTIVE INK

## Application Guidelines

Always mix ink thoroughly before using and during, as silver will settle quickly. Continuous agitation during application is recommended. If silver settles to a hard pack in container, then aggressive mixing is required to break up the silver chunks and redisperse them in the liquid.

## Thinning & Cleanup

Use MEK or other suitable solvents. If faster drying time is required, contact Applied Ink Solutions for solvent recommendations. Do not allow ink to set on an inactive press for any length of time. Always check the viscosity of ink that has been recovered from a press 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 hardened completely.

## Drying

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.

## Completeness of Drying

Evaluate the point-to-point resistance along one of the screened 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.

## Health & Safety

Products manufactured by Applied Ink Solutions are intended for use in an industrial environment by trained personnel. Please follow proper health/safety processes regarding storage, handling and processing of the products.

Guidelines are intended to provide a starting point for evaluation. Applied Ink Solutions recognizes that each customer's manufacturing process is unique, and we are available to provide technical assistance to resolve your processing issues. Call us to discuss your application in more detail.

The properties are accurate to the best of our knowledge and Applied Ink Solutions makes no guarantees for customer specifications established in applications where this product is used. Customer assumes responsibility for determining fitness of use in their particular application.