



AG-800 SILVER CONDUCTIVE INK

Description

AG-800 Silver Conductive Ink is a silver filled, electrically conductive ink for high-speed screen printing.

Features

- Formulated to provide fast drying at low temperatures, while maintaining long open times on screens
- Tough, scuff resistant
- Excellent adhesion to polyester, polyimide, and polycarbonate films and most metal surfaces
- Outstanding crease resistance
- Thin with solvent for spraying or dipping for EMI/RFI shielding applications
- Can be blended with carbon ink to obtain Intermediate resistance values
- Compatible with our UV curable dielectrics, conductive epoxy adhesives and UV curable component encapsulants.

Applications

- Flex circuits
- Membrane switches
- EMI/RFI shielding
- Other printed electronic applications

Application Guidelines

AG-800 will thicken when stored in sealed containers over a period of time. It is essential to mix the material thoroughly before use to redisperse any settled silver particles and to return the ink to a more desired viscosity.

Preliminary TYPICAL PROPERTIES

Appearance	Thick silver paste
Surface Resistivity	<.015 Ω/square/mil
Hegman Gauge	<25 μ
Total % NV Solids	54 - 58%
Viscosity: Brookfield SC4-14 spindle @ SR 20, 25°C	As reported
Thixotropic Ratio	2.3
Theoretical Coverage	41m ² /gallon/25μ (440 ft ² /gallon/mil)

A monofilament polyester (157 to 230 mesh) or a stainless steel (165 to 325 mesh) screen is recommended, with emulsion thickness between .001" and .004". A polyurethane squeegee with a Shore 'A' durometer between 60 and 70 is recommended.

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.

Note for Indium Tin Oxide substrates, use our AG-510 or AG-500A silver conductive inks.



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.

If solvent-based inks are left on screens for any length of time, the ink will gradually thicken as solvent evaporates. If the ink is to be left on an inactive press for any length of time, solvent evaporation can be minimized by pooling the ink to reduce the surface area instead of leaving it spread out over a large area. Pooling the ink reduces the surface area thus slowing the drying process. Always check the viscosity of ink that has been recovered from a screen 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.

Thinning & Cleanup

If necessary, use Solvent 30 to thin the ink. Use MEK or suitable screen cleaner for cleaning the surface of a screen or tools.

Storage & Shelf Life

Store in a dry area at 25°C (room temperature). Shelf life is 6 months in unopened container.

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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