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Technical Data Sheet

CI-1036

Highly Conductive, Highly Flexible Silver Ink

DESCRIPTION	CI-1036 is silver conductive ink designed for superior durability and crease resistance along with low resistance and long screen residence time. The main uses of CI-1036 are for switches that are subject to deformation e.g. poly-doming or intentional creasing or flexing e.g. tail fold-over. CI-1036 shows excellent adhesion to print treated polyester.	
ADVANTAGES	<ul style="list-style-type: none">✓ Excellent abrasion resistance✓ Extended screen residence	<ul style="list-style-type: none">✓ Extremely flexible✓ Highly conductive
TYPICAL UNCURED PROPERTIES	Color Viscosity Total Solids Content Density Flash Point VOC	Silver 10,000 CPS 25°C #51 20 rpm 66% 17.3 lbs/gallon (2.08 kg/l) 230°F (110°C) Tag Closed Cup 703.8 grams of solvent/liter
TYPICAL CURED PROPERTIES	Electrical Resistance Theoretical Coverage	< 0.010 ohms/square @ 1.0 mil < 0.010 ohms/square @ 25.4 microns Cured 10 Minutes at 248°F (120°C) 485.2 ft ² /Gal/Mil 5.74 m ² /kilogram/25.4 microns

**APPLICATION
INFORMATION**

- Target 0.0003” (8µm) dry film thickness (range 7-15 µm per application requirements).
- Screen recommendations:
 - Polyester mesh 156 – 206 threads/in (61-81T/cm)
 - Stainless mesh 173 – 330 threads/in (68-130T/cm)
 - Emulsion 0.0004 – 0.0016” (10-40 µm)
 - Solvent resistant, ≥5µm EOM, direct or capillary
 - Screen tension ≥ 25 N/cm
- Current screen trends offer higher mesh counts with greater % open, high tension and emulsion options to deliver finer lines at thicker deposits.
- Squeegee: solvent resistant, high durometer (70-80), sharp edge.
- Ink preconditioning: gently hand stir with a spatula for 1-2 minutes, and ensure that the ink has reached room temperature. This conditions the viscosity to that seen during screen action. DO NOT use a high velocity / high shear mixer which can induce air bubbles or damage rheology.

**CURE
SCHEDULE**

CI-1036 does not require any leveling time and can be forced cured immediately after printing. Typical forced curing is for 10 minutes at 248°F (120°C). Various time temperature combinations can be used.

Complete cure can be confirmed by re-curing the print a second time and testing the electrical resistance. The electrical resistance should not decrease by more than 10%. If the resistance does decrease more than 10%, increase oven temperature or decrease belt speed.

CLEAN UP

CI-1036 can be cleaned up with M.E.K (Methyl Ethyl Ketone) or a blend of solvents that will completely clean a cured film. Screens and printing tools should be allowed to dry completely before reuse.

**STORAGE AND
HANDLING**

- Shelf life is six (6) months, unopened container, stored < 55°F (15°C).
- Store product < 55°F (15°C) for maximum shelf life and minimal solvent loss. Avoid high temperature exposure.

**HEALTH AND
SAFETY**

- Use with adequate ventilation.
- Avoid skin contact.
- If ingested, consult a physician immediately.
- Consult the product Material Safety Data Sheet for additional information.

**APPLICATION
ASSISTANCE**

ECM’s application specialists are available to assist you in production start-up with **CI-1036**. For more information, please call ECM at 1.740.362.4444.

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