



Technical Data Sheet

CI-4025

Silver/Silver Chloride Polymer Thick Film Ink for Non-Polarizing Electrodes

DESCRIPTION	CI-4025 is one of a family of Screen Printable conductive inks designed for use in medical electrodes. CI-4025 adheres to a wide spectrum of substrates including polyester, paper, fabric, and most plastic films. CI-4025 is formulated to have a Ag:AgCl ratio of 80:20, typically used for sensing electrodes. CI-4025 is application ready with no dilution needed.	
ADVANTAGES	<ul style="list-style-type: none">✓ Low half-cell potential✓ Excellent adhesion✓ Superior ion current detection	<ul style="list-style-type: none">✓ No dilution required✓ Fast curing✓ Excellent printability
TYPICAL UNCURED PROPERTIES	Color Viscosity, CPE#51 @ 5.0 rpm CPE#51 @ 0.5 rpm Total Solids Content Density Flash Point VOC Theoretical Coverage	Silver 16,600 CPS 21,500 CPS 64.35 % 17.94 lbs/gallon (2.15 kg/l) 212°F (100°C) Tag Close Cup 766.4 grams of solvent/liter 536 ft ² /Gal/Mil (6.12 m ² /kg/25.4µm)
TYPICAL CURED PROPERTIES	Electrical Resistance	< 0.050 ohms/square @ 1.0 Mil < 0.050 ohms/square @ 25.4 µm

**APPLICATION
INFORMATION**

- Screen print **CI-4025** with any screen emulsion/mesh combination that yields a wet film thickness of 0.2-1.2 mils. The dry film will yield a dry film thickness of roughly half. Electrode requirements for thickness vary greatly.
- Typical screens used are 200 - 300 mesh with a 1.0 mil emulsion.
- Silver chloride is corrosive with some metals. Avoid contact of CI-4025 with non-stainless steel metal. Tape off screen frames and flood bar. Contamination can be detected by discoloration (brown) of the ink.

**CURE
SCHEDULE**

110°C for 5-10 minutes. Complete cure can be confirmed by re-curing the print a second time, and comparing the electrical resistance. The electrical resistance should not decrease by more than 10%.

CLEAN UP

CI-4025 can be cleaned up with M.E.K (Methyl Ethyl Ketone) or any commercial blend of solvents that will completely clean a cured film.

**STORAGE AND
HANDLING**

- Shelf life is six (6) months in an unopened container, stored below 50°F.
- Store product below 50°F for maximum shelf life and minimal solvent loss. Avoid high temperature exposure. Keep out of direct sunlight.
- The product must be conditioned back to room temperature before use.

**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.

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