CI-2002

Carbon Ink for Print Treat
Non-Print Treat PET

DESCRIPTION **CI-2002** is a carbon conductive ink designed to deliver stable resistance values over time and environmental aging. **CI-2002** adheres to a wide spectrum of substrates including print treated and non-print treated polyester, paper, and most plastic films. Resistive blends are available for target resistance applications.

ADVANTAGES

- ✓ Stable resistance
- ✓ Excellent adhesion
- ✓ Extended screen residence
- ✓ No dilution required
- ✓ Fast curing
- ✓ Excellent printability

TYPICAL UNCURED PROPERTIES	Color	Black
	Appearance	Thixotropic paste
	Total Solids Content	38 %
	Density	10.0 lbs/gallon
	Flash Point	212°F (100°C) Tag Close Cup
	VOC	758.4 grams of solvent/liter
	Theoretical Coverage	469 ft^2/Gal/Mil 9.43 m^2/kilogram/25.4 microns
TYPICAL CURED PROPERTIES	Electrical Resistance	<50 Ohms/Square @ 1.0 Mil (Cured at 10 Minutes at 230°F)

APPLICATION INFORMATION

- Typical screens used are 180 - 220 mesh with a 1.0 mil emulsion.
- Stainless steel fabric can be used to increase dry film thickness.
- 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 5%.
- Typically, it is not possible to over cure **CI-2002**. Added curing will improve the flexibility and conductivity properties.
- **CI-2002** can also be cured with infrared energy. This method often provides improved properties over conventional heat curing.
- **CI-2002** can be blended with a resistance modifier to increase electrical resistance values. Please contact a Polymark technical service professional for recommendations.

CURE SCHEDULE

CI-2002 does not require any leveling time and can be forced cured immediately after printing. Lower initial curing temperature will produce better results as black body inks absorb more heat energy, especially IR, than light or reflective inks like silver, and therefore can drive off solvents too aggressively. 176-194°F for 2-5 minutes is recommended. If possible, drive off solvent at a low temperature of 176°F followed by a higher temperature cure of 194-212°F.

CLEAN UP

CI-2002 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. To avoid possible squeegee swelling, a solvent resistant material such as polyurethane should be used. Typically a high durometer squeegee will provide the best results.

STORAGE AND HANDLING

- Shelf life is six (6) months in an unopened container when stored below 70ºF.
- Store product below 70ºF for maximum shelf life and minimal solvent loss. Avoid high temperature exposure.
- It is suggested that the product be stored at 55ºF to increase shelf life. 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.