

TECHNICAL SPECIFICATIONS

PRODUCT DESCRIPTION

The CARBON ELECTRON CELO03 is a solvent ink.

APPLICATIONS

Compatible with paper, cardboard, PET, treated polyester. Overprinting on layers deposited with SELEC and LV-SELEC inks.

The above-mentioned substrates may differ according to their origin. It is therefore essential to carry out preliminary test.

MAJOR ADVANTAGES

Excellent conductivity, easy to use with screen printing process. Good printability and printing uniformity on large areas, long shelf life on screen.

ELECTRICAL PROPERTIES

Resistivity $\leq 120 \text{ m}\Omega/\text{sq}/\text{mil}$ under 120°C (248°F).

PRINTING

Machines: automatic, semi-automatic and manual silkscreen machines.

Screen: all types of polyester or stainless-steel fabrics can be used with a mesh from 79 to 120 threads/cm.

Squeegees: polyurethane 65 Shore A, good sharpness.

Dilution: no dilution must be performed before printing. Such treatment would deteriorate the conductive properties of the printed patterns.

Cleaning: MP201.

THICKNESS PRINTING

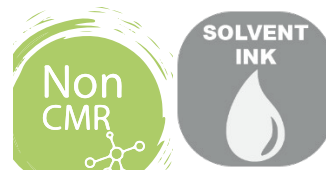
(90 threads/cm polyester mesh) : 8 micron

DRYING AND CURING

Thermal curing: 120°C to 150°C (248 to 302°F) during 3 to 5min
NIR lamps: 2 seconds

PACKAGING

High density polypropylen pots (HDPP). Open pots for sampling must be carefully closed as soon as possible.



Ink properties

TEST	PROPERTIES
Viscosity (Poises), Rotathinner, 562 RPM, 25°C	90 - 110
Shelf-life on screen (min)	> 30
Coverage (cm ² /g) : Depending on thickness	360 - 400

Physical properties of conductors printed on PET TCA (125 μm)

TEST	PROPERTIES
Resistivity ($\Omega/\text{sq}/\text{mil}$) ; Curing at 120°C - 5 mins	120
Resistivity* after net fold (1 cycle) ($\Omega/\text{sq}/\text{mil}$)	148
Adhesion, ASTM 3359 (B)	5B
3,5N and 7,5N scotch resistance	No transfer

WASTE MANAGEMENT

Packaging contaminated with hazardous substances.

Do not dispose into the environment.

VFP Ink Technologies encourages all users to develop a responsible environmental policy.

HEALTH AND SECURITY

Refer to the MSDS.

We recommend that you wear Personal Protective Equipment recommended by the MSDS and follow its handling precautions.

STORAGE

1 year in its original packaging stored between $+5^\circ\text{C}$ and $+35^\circ\text{C}$.

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