

## 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  $120^\circ\text{C}$  ( $248^\circ\text{F}$ ).

### 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

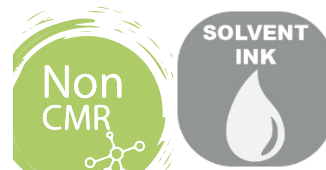
(90 threads/cm polyester mesh) : 8 micron

### DRYING AND CURING

Thermal curing:  $120^\circ\text{C}$  to  $150^\circ\text{C}$  ( $248$  to  $302^\circ\text{F}$ ) 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 ( $\text{cm}^2/\text{g}$ ) : Depending on thickness	360 - 400

### Physical properties of conductors printed on PET TCA (125 $\mu\text{m}$ )

TEST	PROPERTIES
Resistivity ( $\Omega/\text{sq}/\text{mil}$ ) ; Curing at $120^\circ\text{C}$ - 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  $+35^\circ\text{C}$ .

**Guarantee reserves:** Although the data in this leaflet have been established after careful testing, it is provided as a guide; no liability can arise from this for VFP, it being understood that we advise you to carry out preliminary tests before any commercial draw. No seller, representative or agent has the right to give any guarantee or insurance, which would be in contradiction with what is said above. In any case, refer directly to our general conditions of sale.