

TECHNICAL SPECIFICATIONS

PRODUCT DESCRIPTION

The SILVER ELECTRON (SE) is a solvent ink.

APPLICATIONS

Compatible with PET (non-treated and treated), TCA, Polycarbonate, glass, polyimide and paper.

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

MAJOR ADVANTAGES

Ink used for industrial thermoforming applications, resistance to over molding, conductive stability over time after annealing and elongation.

ELECTRICAL PROPERTIES

Resistivity $\leq 15 \text{ m}\Omega/\text{sq}/\text{mil}$

PRINTING

Printers: Screen printing for automatic, semi-automatic and manual 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. However, manual shaking is recommended before use.

Cleaning: we recommend Ethyl-acetate as cleaning solvents.

THICKNESS PRINTING

90 threads/cm polyester mesh : 8-9microns

DRYING AND CURING

Thermal curing:

130°C (266°F) during 30 min

150°C (302°F) during 10 min

Thermoforming: drying at 50 °C (122°F) for several minutes + annealing during the thermoforming process at 200/300°C (392/572°F).

PACKAGING

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



Ink properties

TEST	PROPERTIES
Viscosity (Poises), Rotathinner, 562 RPM, 25°C	58-64
Coverage (cm ² /g) : Depending on thickness	280 - 360
Shelf-life on screen (min)	60

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

TEST	PROPERTIES
Resistivity (mΩ/sq/mil) ; Curing at 150°C - 10 mins	15
Resistivity* after net fold (1 cycle) (mΩ/sq/mil)	16
Adhesion (cross-cut test)	Level 0

*Calculation based on linear circuit with the following dimensions: Length: 6 cm, Width: 1 mm, Thickness: 8 μm.

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°C and +35°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.