SILVER ELECTRON THIN FILM (SETF)

Silver conductive ink

TECHNICAL SPECIFICATIONS

PRODUCT DESCRIPTION
The SILVER ELECTRON THIN FILM (SETF) is a solvent ink.

APPLICATIONS
Compatible with paper, cardboard, PVC, PET, polycarbonate, treated polyester, glass, polyimide.

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

MAJOR ADVANTAGES
Good conductivity. Flexible and high temperature resistant ink after annealing. Excellent adhesion and good printing resolution.

ELECTRICAL PROPERTIES
Resistivity ≤ 150 mΩ/sq /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: MP201.

THICKNESS PRINTING
Stainless-steel 288 threads/mesh : 6 microns

DRYING AND CURING
Thermal curing:
130°C (266°F) during 30 min
150°C (302°F) during 10 min
NIR lamps : 4 seconds

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

Ink properties	
TEST	**PROPERTIES**
Viscosity (Poises), Rotothinner, 25°C	44 - 54
Coverage (cm²/g) : Depending on thickness	300 - 380
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	150
*Resistivity after net fold (1 cycle) (mΩ/sq/mil)	160
Adhesion (cross-cut test)	S0 Class 0 according to EN ISO 2409 :2020 standard.

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

2025