

## Helios ETL D Screen (H-DZ01018)

Helios ETL D Screen (H-DZ21018) Semi Conductive Ink was developed for the printed electronics market and is particularly well suited for OPV and PV.

Helios'Ink H-DZ21018 Semi Conductive Ink shows great performance on Screen printing and Blade coating.

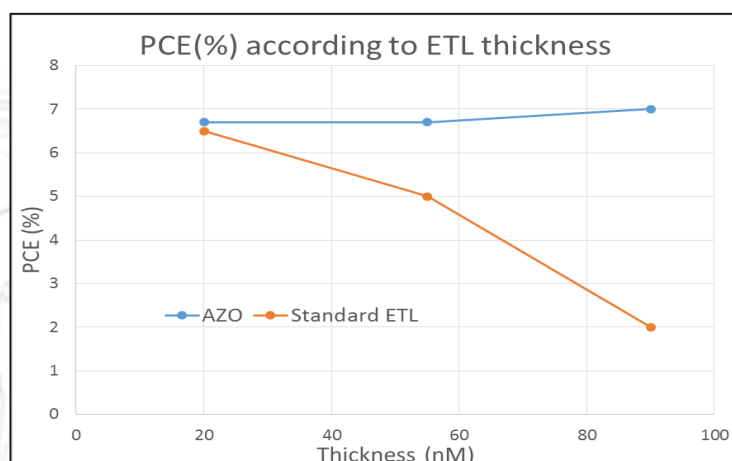
The use of Helios ETL D Screen (H-DZ21018) Semi Conductive Ink is greatly improving the devices performances by reducing the roughness of the TCE while improving the electrical conductivity and the transparency. Life time of the devices is also increased.

The use of Helios ETL D Screen (H-DZ21018) provides ETL layer with high performances. In addition, compared to standard ETL, the PCE not retained even with higher thickness.

### Process: Screen printing

#### Ready-to-Use Ink

Material	AZO nanoparticles
Solvent type	Alcohol
Viscosity (20°C)	30 ± 5 mPa.s
Surface Tension	30 ± 5 mN/m
Storage stability	6 months at 18-25 °C



#### Key advantages & benefits

- Easy deposition under atmospheric conditions (temperature and pressure)
- Good optical performances (Visible light transmission > 90%)
- Non-Toxic (No CMR ink)
- Compatible with ITO layer and Ag NWs layer
- Compatible with most flexible substrates
- Low drying temperature making printing onto flexible substrates possible

#### Typical Electrical Properties

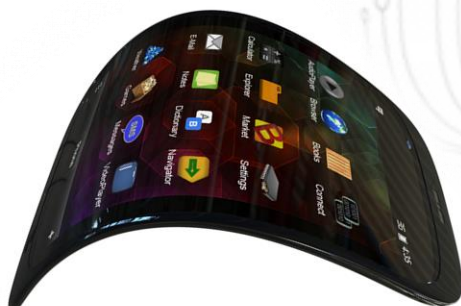
Work function	3.6 ± 0.1 eV
Conductivity	10 <sup>-3</sup> – 10 <sup>-4</sup> S/cm

## Typical Processing Guideline

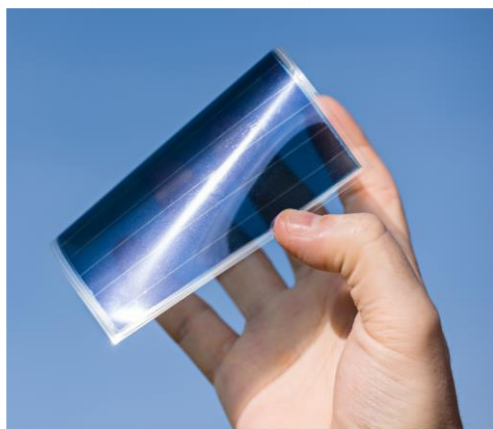
- Helios ETL D Screen (H-DZ01018) Semi Conductive Ink can be homogenized for 5 minutes in an ultrasonic bath in order to get rid of any aggregates
- Filtration on a 0.45 µm PTFE filter syringe to avoid any nozzles clogging
- Drying conditions: Oven, IR oven, Vacuum oven
- Clean-up solution: Ethanol/Acetone

## Applications

### Flexible OLED Display



### OLED & OPV grid



## Shipping & Packaging

- Standard sample order is 100 ml
- Standard bulk order is 1 l
- Standard delivery time is 10 days

For more information on our semi conductive inks, please contact:



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