

TranDuctive® E20 CS41221 is designed for ITO replacement. The ink is based on a mix of silver nanowires and Zinc Oxide NP, enabling electrode and ETL layer printing in a single process step. Targeted application is printed transparent conductive film.

**Process: Slot die coating, blade coating, Spray.**

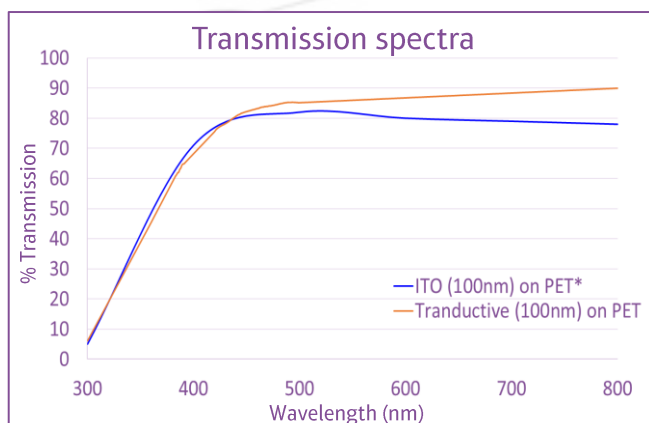
### Ready-to-Use Ink

Material	Silver nanowires
Solvent type	Water/Alcohol mix
Viscosity (20°C)	43 ± 5 mPa.s
Density	0,8 g/cm <sup>3</sup>
Storage stability	3 month (0-5°C)

### Typical printing performances

Sheet resistance	20 ± 5 Ω/□
Transparency	82%
Roughness (Rq)	< 10 nm
Thickness	200 nm
Sintering Conditions	RT 90s + 90°C 90s
Bending radius	1,5 mm

Blade Coating: 24 µm wet thickness / 50 mm/s  
PET Folex CF-T1/PD New quality



\*ECS Journal of Solid State Science and Technology, 1 (5) Q106-Q109 (2012) – Crystallized Indium-Tin Oxide (ITO) Thin Films Grown at Low Temperature onto Flexible Polymer Substrates

### Key advantages & benefits

- No need for additional investment equipment, zero CAPEX solution
- Allow manufacturing of very thin films for ultra flexible devices
- Low processing temperature enable use of various substrates and coating

### Qualified Substrates (5B – ASTM D3359)

- PET : Melinex 406, Policrom STS H.02 – H.02, Folex CF\_T1/PD New quality
- PEN : Teonex Q51
- PC

### Cleaning

- Ethanol or IPA are recommended to clean TranDuctive® products

## Features

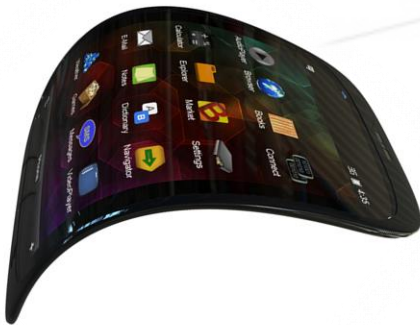
- Superior stability of coated layer
- Long lasting conductivity
- Tuneable sheet resistance from 10 to 300 Ohm/sq
- Homogeneous sheet resistance over the printed surface
- High flexibility
- Very low roughness between 5 and 10nm
- Good transparency above 90%
- Easy to process: robust and standard deposition methods (slot die, spray, ...)

## Printing guidelines

- Tranductive ink is warmed at room temperature (30 min) and gently re-homogeneized (manually)
- Optional: Ink can be filter with a 60 µm-pore nylon filter by gravity
- Tranductive ink is printable by spray, doctor blade, slot-die and spin-coater.

## Applications

### Flexible OLED Display



### Flexible Transparent OPV



## Shipping & Packaging

- Standard sample order is 100 mL
- Standard bulk order is 1 L
- Standard delivery time is 10 days



*TranDuctive® layer coated on PET*

For more information on our conductive inks, please contact:



39, Avenue Gaston Imbert - 13790 Rousset  
FRANCE

Tel : +33 (0)4 42 37 05 80

Fax : +33 (0)4 42 20 07 03

[contact@genesink.com](mailto:contact@genesink.com)

<http://www.genesink.com>

### Limited Warranty

GenesInk guarantees the quality of its products. Since Genes'Ink cannot anticipate or control factors and variables under which the products and information will be used, GenesInk cannot guarantee the results. Shelf life of material is defined for unopened containers from date of shipment. The information provided by GenesInk is provided in good faith, and the responsibility is limited solely to the exchange of the product supplied. The information provided in this technical sheet is provided as guidelines and is not intended to represent or warrant or ensure suitability of the product for any specific uses..