

**TECHNICAL DATA SHEET**

ELEFINER F30Y2

July, 2015

**TAIYO INK MFG. CO., LTD.**

S-Project: 388 Okura,Ranzan-machi,Hiki-gun,Saitama,355-0222 Japan

TEL:81-493-62-7882 FAX:81-493-62-7962

**Photolithographic Conductive Silver Paste**  
**ELEFINER F30Y2**

**1. FEATURES :**

**ELEFINER F30Y2** is 1 component, photolithographic conductive silver paste with following features:

- a) Capability to form fine-line electrodes on base material by photolithographic method
- b) Processability under low temperature
- c) Excellent adhesion to PET and ITO
- d) Good resolution

**2. SPECIFICATION :**

Color	Silver gray
Viscosity	140dPa·s±20dPa·s ( Cone-plate type viscometer, 5rpm / 25deg.C )
Solid Content*	86wt% (Calculated value)
Standard thermal cure condition	140deg.C / 30 min. (Hot air convection oven)
Shelf life*	6month after production (stored in dark place at less than 5deg.C)

\* After manufacturing

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**3. PROCESS CONDITION**

Process		Range
Printing	380 mesh-count, PET Calendar Screen	Thickness 4-6um after thermal process
Drying	80deg.C / 30 min. (Hot air convection oven)	80deg.C 30-40 min
Exposure	Lamp: High Pressure Mercury Lamp Luminance: 17mW/cm <sup>2</sup> 150mJ/cm <sup>2</sup> (on paste surface)	--- 17-35mW/cm <sup>2</sup> 100-200mJ/cm <sup>2</sup>
Development	Aqueous alkaline solution : 0.2wt% Na <sub>2</sub> CO <sub>3</sub> Temperature : 40deg.C Spray pressure : 0.2MPa Developing time : 20 sec	--- --- 0.15-0.25MPa ---
Water rinse	DI Water Temperature : 25deg.C Spray pressure : 0.1MPa Rinsing time : 40 sec	--- Blow 30deg.C 0.1-0.15Mpa 45-60sec
Thermal process	140deg.C / 30min. (Hot air convection oven)	140deg.C 30min

**4. GENERAL CHARACTERISTIC:**

Item	Thickness	Exposure energy	Result
Mask design: Resolution 20um	5um	100mj/cm <sup>2</sup> (On paste surface)	Actual line width: 25um
		150mj/cm <sup>2</sup> (On paste surface)	Actual line width: 27um

Item	Thickness	Loading:750g	Result
Line hardness	5um	2H (Pencil hardness)	No line break
		3H (Pencil hardness)	No line break

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Item	Thickness	Thermal process temperature	Result
Specific resistance	5um	140deg.C 30min	9.0E-05ohm·cm

**5. Attention**

- A. All test data shown above in this technical data sheet are based on our laboratory test result and only for reference, not guarantee the same on your process.
- B. All chemicals used in this product might have unknown toxicity. Please handle with your most care referring to the MSDS for use.