**Introduction**

This high performance screen printable conductive silver paste provides excellent flexibility, conductivity and adhesion to ITO and Dielectric Layer in the manufacturing of Electroluminescent (EL) Light Panel.

NS001 when use with Nejilock’s ITO, Phosphor Ink and Dielectric Ink will produce vibrant EL Light Panel with good working life.

**Properties**

Conductive Inks are usually the last layer to be printed on an Electroluminescent (EL) Light Panel, these Inks can be Carbon, Carbon/Silver or Silver. NS001 high performance conductive paste is specially formulated for use as a front and rear electrode in an EL Light Panel. It’s excellent adhesion strength to ITO and electrical conductivity makes it a perfect choice for making good quality EL Light Panel.

- Excellent electrical conductivity
- Excellent adhesion
- Long shelf life
- High Tg (Glass Transition Temperature) to prevent blocking

**Mixed Properties:**

<table>
<thead>
<tr>
<th>Properties</th>
<th>Typical Value (1)</th>
<th>Test Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Silver Gray</td>
<td>Observation</td>
</tr>
<tr>
<td>Total Solid Contents</td>
<td>ca. 67 wt%</td>
<td></td>
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<tr>
<td>Adhesion (Tape Pull)</td>
<td>100/100 (ITO film)</td>
<td>3M Scotch Tape #600</td>
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<tr>
<td>Hardness</td>
<td>H</td>
<td>ASTM D3363</td>
</tr>
<tr>
<td>Resistivity</td>
<td>≤40 mΩ/☐/ mil</td>
<td>ASTM D257-78</td>
</tr>
<tr>
<td>Viscosity</td>
<td>10,000±3,000 cps</td>
<td>Viscometer (2)</td>
</tr>
<tr>
<td>Shelf Life</td>
<td>6 Months</td>
<td>&lt;20°C (unopened)</td>
</tr>
</tbody>
</table>

(1) Typical properties which are not intended to be used as specification limits.
(2) Brookfield RVF #4 spindle at 10 rpm, sampling temperature at 24.5°-25.5°C
Processing

Roll the Silver Ink for 5~10 minutes at 100~200rpm prior to use (i.e. using a Rock ‘n’ Roll mixer or a Tumbler mixer) to ensure product is homogenous.

Screen Printing Equipment  * Semi-Automatic or Manual

Ink Screen Life  * >3 hours

Screen Types  * 100T Polyester Mesh

Typical Curing Conditions  * Belt Dryer 130°C for 4 - 5 minutes (Depending on Dryer design)
                          * Box Oven 130°C for 30 – 45 minutes (Depending on Dryer design)

Clean Up Solvent  * MEK or Other Suitable Solvents

Substrate  * ITO coated polyester (Suggest using Nejilock’s ITO/PET Film)

Storage  * The product should be kept sealed, in its container, and stored at room temperature (20°C)

Shelf Life  * In a sealed container, stored correctly, the shelf life is minimum 6 months from despatch.

Diluent / Thinner  * Not Recommended

SAFETY AND HANDLING

These inks are intended for industrial use by trained personnel. It is important for workers to avoid overexposure to chemicals contained in these products. Read the Material Safety Data Sheet (MSDS) and product labels before using the products. Keep product container closed when not in use to prevent solvent evaporation and spilling hazard.

The information given and the recommendations made herein are based on our research and are believed to be accurate but no guaranty of their accuracy is made. In every case, we urge and recommend that purchasers, before using any product in full scale production, make their own tests to determine to their own satisfaction whether the product is of acceptable quality and is suitable for their particular purposes under their own operating conditions.