**Transparent Conductive Film (DPT Film)**

DPT = Direct Printing Technology: Fine Line Printing Technology

Transmission film with ink absorbing layer

Precision screen mask

Conductive film production and patterning on the film at the same time.

DPT film is low resistance and high transparent conductive film by using Gunze's original direct printing technology which is pattern printing with Ag fine particles on plastic film.

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**Standard Mesh Pattern**

Applications: Transparent Electromagnetic shielding parts, conductive film for film devices

**Transparent Conductive Film by Whole Mesh Pattern**

<table>
<thead>
<tr>
<th>Line width</th>
<th>Pitch</th>
</tr>
</thead>
<tbody>
<tr>
<td>20μm</td>
<td>300μm</td>
</tr>
<tr>
<td>400μm</td>
<td>500μm</td>
</tr>
<tr>
<td>1000μm</td>
<td></td>
</tr>
</tbody>
</table>

**Property of Electromagnetic Shield**

- **DPT film** (250Ω/□)
- **VHF TV, FM radio, Wireless for airplane**
- **Transceiver, Amateur radio**
- **Mobile phone (3G)**

**Extra Thin Wire Pattern (Under Development)**

The printing of extra thin wire of less than 10μm has largely improved visibility.

Applications: Conductive film for capacitive touch sensor for mobile devices

**Extra thin wire pattern**

- Line width: 7.7μm
- Height: 1.8μm
- Pitch between lines: 31.6μm

**[3.5 inch trial panel]**

<table>
<thead>
<tr>
<th>Total transparent (%)</th>
<th>Haze (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>87.5</td>
<td>1.9</td>
</tr>
</tbody>
</table>

*Representative value

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