Highly Durable Transparent Film (HD Film)

- The maximum pencil hardness is 9H. Various surface functions can be added.
- AFP, AR, AG, ITO film are available.

**Specification**

<table>
<thead>
<tr>
<th>Item</th>
<th>Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pencil Hardness</td>
<td>9H, 5H (under development)</td>
</tr>
<tr>
<td>Thickness (μm)</td>
<td>200, 100</td>
</tr>
<tr>
<td>Transmittance (%)</td>
<td>91</td>
</tr>
<tr>
<td>Retardation (nm)</td>
<td>&lt;10</td>
</tr>
<tr>
<td>Refractive Index</td>
<td>1.52</td>
</tr>
<tr>
<td>Glass Transition Temperature (°C)</td>
<td>&gt;200</td>
</tr>
<tr>
<td>Coefficient of linear expansion (ppm)</td>
<td>40</td>
</tr>
<tr>
<td>Flexibility (mmdg)</td>
<td>10, 2</td>
</tr>
</tbody>
</table>

**Pencil Hardness**

- PET Film
- Hard coating
- HD Film

**Appearance Option**

- By changing the design of film surface, we can produce clear type and AG type.

**Clear type**

**AG type**

**Sparkling-less AG (under development)**

- Conventional anti-glare appearance
- Developed anti-glare appearance

**Smooth Touch Type**

- Applying hydrophobic and oleophobic to layer to HD film enables film surface greatly smooth.

**Improved Processing Type**

- Conventional product requires CO₂ laser for cutting. By adjusting material itself, HD film’s punching process has been improved.

**Contact Information**

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