VISION STATEMENT

Toppan USA is committed to creating a sustainable future by improving our environmental, social and corporate influence. Our contribution includes allocating resources to develop new and innovative products that provide advantages to consumers and brand owners while making the world a greener place.

Our newly launched PP and PE Transparent barrier films are recyclable when laminated to an similar base film making a "Mono-Material" structure, with exceptional shelf life and reducing the overall packaging material content. Our goal is to be a leader in flexible packaging and help guide the universal recycling principles in an effort to align the packaging industry to one that offers more sustainable solutions.

THE CLEAR ADVANTAGE IN TRANSPARENT HIGH BARRIER FILMS

Toppan USA's Georgia Plant officially opened on April 8, 2016. As the flexible packaging market continues to expand in North America, Toppan Printing decided to meet this growing demand by establishing a state of the art production facility. It became the premier transparent film supplier of (GL FILM) in the US, South America and Europe.

GLOBAL HIGH BARRIER FILM SUPPLIER

Toppan has 3 manufacturing facilities that produce & supply transparent high barrier films. This allows us to respond to the needs of our customers by providing shorter lead times, local product development, technical assistance, stable supply and an unmatched level of quality to the market.

HEADQUARTERS
603 Rehoboth Road
Griffin, GA 30224

SALES OFFICE
3601 Algonquin Rd, Suite 625
Rolling Meadows, IL 60008
224-735-2005
sales@toppan-usa.com
www.toppan-usa.com
This transparent barrier film has the world’s highest level barrier performance that is suitable for a wide range of applications. This film has many outstanding properties due to the use of Toppan’s original transparent vapor deposition and coating technologies.

**GL FILM FEATURES**
- **EXCELLENT BARRIER PERFORMANCE**
  - GL FILM offers an alternative to AL Foil, and an improvement over Metallized Films, PVDC, an EVOH
- **VERSATILE LINEUP**
  - Maintaining barrier performance under high temperature and humidity
- **ENVIRONMENTALLY FRIENDLY**
  - High Transparency, enhance product appeal and display content
  - Suitable for Metal Detection & Microwavable
  - Films contain no chlorine

**GL FILM LINEUP**

<table>
<thead>
<tr>
<th>TYPE</th>
<th>GRADE</th>
<th>Base Film</th>
<th>OTR Metric / Imperial</th>
<th>WVTR Metric / Imperial</th>
<th>APPLICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard</td>
<td>AX-7</td>
<td>PET 48ga</td>
<td>0.5/0.032</td>
<td>1.0/0.065</td>
<td>Dry Content</td>
</tr>
<tr>
<td></td>
<td>GX-P-F</td>
<td>PET 48ga</td>
<td>0.1/0.006</td>
<td>0.05/0.003</td>
<td>Medical &amp; Electronics</td>
</tr>
<tr>
<td>Retort</td>
<td>GL-ARH</td>
<td>PET 48ga</td>
<td>0.3/0.019</td>
<td>0.7/0.045</td>
<td>Hot Fill / Liquid Content</td>
</tr>
<tr>
<td>Autoclave</td>
<td>GL-ARH</td>
<td>PET 48ga</td>
<td>0.3/0.019</td>
<td>1.3/0.084</td>
<td>Standard to High Retort</td>
</tr>
<tr>
<td>Recyclable</td>
<td>GL-ARH</td>
<td>PET 48ga</td>
<td>0.2/0.013</td>
<td>0.3/0.019</td>
<td>Enhanced Post-Retort</td>
</tr>
<tr>
<td></td>
<td>GL-ARH</td>
<td>PE 125ga</td>
<td>1.0/0.065</td>
<td>0.5/0.032</td>
<td>Dry Content</td>
</tr>
<tr>
<td></td>
<td>GL-LE-G</td>
<td>PP 68ga</td>
<td>1.0/0.065</td>
<td>0.5/0.032</td>
<td>Dry Content</td>
</tr>
</tbody>
</table>

GL FILM consists of a 1 transparent base layer (PET, PE, PP), an 2 inorganic high quality vapor deposition layer (AlOx or SiOx), and a 3 proprietary barrier coat layer.
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