A few examples of material applications…

Photoluminescent safety signs and egress path markings

PERMALIGHT® photoluminescent flexible and rigid substrates are perfect for the production of safety signs and exit path markings per domestic and international standards (ASTM, DIN, IMO, IBC/IFC, NFPA, UL, NYC RS6-1, APTA, etc.) requiring photoluminescent materials.

Due to our active participation in code- and standard-writing organizations like ASTM, APTA, UL, NFPA, DIN and others, we are intimately familiar with photoluminescence-related requirements and supply the necessary material grades.

The perfect substrates for your production processes!

- Digital printing with solvent- and eco-solvent based inks
- UV and Air Dry screen printing
- Plotter cutting, die-cutting and punching
- Thermal transfer printing (e.g. EdgeTM suited 15” perforated film)
- Heat forming into dimensional L and V shaped signs
- ADA signage with raised letters and Braille for the Visually Impaired
How does it work?

PERMALIGHT® photoluminescent products absorb light and their luminance becomes visible, once the ambient lighting is less than the emitted luminance.

The luminance depends on several factors:
- Type of pigment - PERMALIGHT® uses patented High Performance Strontium Oxide Aluminate Pigments.
- Quantity of pigment - the more pigment incorporated, the more charging power the material has.
- Type of light source – cool white light sources, such as LED (Light Emitting Diode), fluorescent lighting and sunshine are excellent activators.
- Illumination - light intensity on the surface of material is measured in Lux or Foot Candle (fc). 1 foot candle equals 10.8 Lux. Our UL1994-listed Substrates were tested to successfully be visible with just 1 fc of activation.
- Length of Illumination - at least 60 minutes of activation are recommended.

Other terms for our photoluminescent technology are phosphorescence, high performance glow in the dark and self-illuminating.

PERMALIGHT® photoluminescent products are:
- Non radioactive
- Non toxic
- Lead free
- Self-extinguishing vinyl
- No phosphor ingredients
- ADA signage with raised letters and Braille for the Visually Impaired

Tel. 310-891-0924
Photoluminescent Printable Substrates

The perfect printable substrates for your production processes!

- Digital printing with solvent- and eco-solvent based inks
- UV and Air Dry screen printing
- Plotter cutting, die-cutting and punching
- Thermal transfer printing (15” perforated film for Gerber Edge™)
- Heat-forming into dimensional signs
- ADA signage with raised letters and Braille for the Visually Impaired

You can produce Photoluminescent Signs in-house, using our substrates:
**Flexible Films (Bulk Format)**

*For COMPARISON PURPOSES, column Guaranteed Luminance shows glow results in millicandela per square meter (mcd/m²), following laboratory activation by 1000 Lux (93 foot-candles) of Xenon Lighting for 5 minutes (DIN 67510). The results are shown as X mcd/m² at 10 minutes in the dark and Y mcd/m² at 60 minutes in the dark. (Example: 55 / 8 mcd/m² explains: 55 mcd/m² at 10 min. and 8 mcd/m² at 60 min.)*

**PERMALIGHT® Photoluminescent flexible vinyl and polyester film rolls**

<table>
<thead>
<tr>
<th>Item-No.</th>
<th>Description</th>
<th>Roll Dimensions</th>
<th>Daylight Color</th>
<th>Standards</th>
<th><em>Guaranteed Luminance of:</em></th>
<th>This material is ideal for:</th>
</tr>
</thead>
<tbody>
<tr>
<td>81-2509</td>
<td><em>plus 55/8 Polyester Thin Film, self-adhesive</em></td>
<td>39-⅝” x 54.7 yards</td>
<td>Light Yellow; Semi-Glossy</td>
<td>2.75 times brighter than Standard Glow. IMO A.752(18) Signage.</td>
<td>55 / 8 mcd/m²</td>
<td>Areas with permanent lighting during operating hours</td>
</tr>
<tr>
<td>81-250924</td>
<td>suited for Gerber Edger™</td>
<td>24” x 54.7 yards</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>81-250915</td>
<td></td>
<td>15” with perforation x 54.7 yards</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>81-2566</td>
<td><em>power 150/22 Polyester Thin Film, self-adhesive</em></td>
<td>39-⅝” x 54.7 yards</td>
<td>Yellowish; Semi-Glossy</td>
<td>UL1994-listed as CC-TAPE. 7.5 times brighter than Standard Glow.</td>
<td>150 / 22 mcd/m²</td>
<td>emergency staircases guiding out of high-rise buildings (office, hospital, hotel/motel, etc.) per IBC/IFC/NFPA codes. Staircase Identification/Floor ID Signage with raised Floor Level + Braille.</td>
</tr>
<tr>
<td>81-256624</td>
<td></td>
<td>24” x 54.7 yards</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>~ 0.015 in. total (0.008” film only)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>81-2700*</td>
<td><em>HPPL power 250/30 Vinyl, self-adhesive</em></td>
<td>39-⅝” x 54.7 yards</td>
<td>Yellow-greenish; Matte</td>
<td>12.5 times brighter than Standard. IMO A.752(18). APTA HPPL-former.</td>
<td>250 / 30 mcd/m²</td>
<td>For areas with poor lighting and specific requirements for safety, such as: Low Location Lighting on-board passenger ships, inside passenger trains.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>~ 0.018 in. total (0.012” film only)</td>
<td>surface</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**PERMALIGHT® new APTA-compliant HPPL (High Performance Photo Luminescent) rolls**

<table>
<thead>
<tr>
<th>Item-No.</th>
<th>Description</th>
<th>Roll Dimensions</th>
<th>Daylight Color</th>
<th>Standards</th>
<th><em>Guaranteed Luminance of:</em></th>
<th>This material is ideal for:</th>
</tr>
</thead>
<tbody>
<tr>
<td>81-2750</td>
<td><em>new APTA Flexible Vinyl</em>* in power 450/60 mcd/m²</td>
<td>39-⅝” x 27.35 yards</td>
<td>Yellowish; Matte</td>
<td>22.5 times brighter than Standard. New APTA (2007 update)</td>
<td>450 / 60 mcd/m²</td>
<td>Emergency Signage &amp; Low Location Path Marking in Passenger Trains</td>
</tr>
<tr>
<td></td>
<td>NON-adhesive</td>
<td>~ 0.022 in.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Material sizes, features and performance subject to technical changes without prior notice. Data as of January 2018.

Before starting a full production run, test suitability of product for your printing processes.

Subject to our Terms of Delivery and Payment. Distributor pricing will only be granted to buyers that qualify for the discounted price level.
### Rigid Sheets (Bulk Format)

*For COMPARISON PURPOSES, column **Guaranteed Luminance** shows glow results in millicandela per square meter (mcd/m²), following laboratory activation by 1000 Lux (93 foot-candles) of Xenon Lighting for 5 minutes (DIN 67510). The results are shown as X mcd/m² at 10 minutes in the dark and Y mcd/m² at 60 minutes in the dark. (Example: 20 / 3 mcd/m² explains: 20 mcd/m² at 10 min. and 3 mcd/m² at 60 min.)*

**PERMALIGHT® Photoluminescent rigid PVC sheets**

<table>
<thead>
<tr>
<th>Item-No.:</th>
<th>Description</th>
<th>Dimensions Rigid Thickness</th>
<th>Daylight Color</th>
<th>Standards</th>
<th><em>Guaranteed Luminance</em></th>
<th>This material is ideal for:</th>
</tr>
</thead>
<tbody>
<tr>
<td>81-1026</td>
<td>Standard Rigid PVC; NON-adhesive</td>
<td>39-3(\frac{3}{8})&quot; x 47-(\frac{1}{8})&quot; ~ 0.043 in.</td>
<td>Off-White; Matte surface</td>
<td>Standard Glow. DIN 67510.</td>
<td>20 / 3 mcd/m²</td>
<td>Bright indoor areas with permanent lighting or daylight (e.g. office room &amp; corridors with windows).</td>
</tr>
<tr>
<td>81-1066</td>
<td>Power 150/22 Rigid PVC; NON-adhesive</td>
<td>39-3(\frac{3}{8})&quot; x 47-(\frac{1}{8})&quot; ~ 0.046 in.</td>
<td>Pale Yellow; Matte surface</td>
<td>UL1994-listed as CC-RIGIDX. 7.5 times brighter than Standard Glow. IMO A.752(18).</td>
<td>150 / 22 mcd/m²</td>
<td>Emergency staircases guiding out of high-rise buildings (office, hospital, hotel/motel, etc.) per IBC/IFC/NFPA codes. Staircase Identification/Floor ID Signage with raised Floor Level + Braille.</td>
</tr>
<tr>
<td>81-1077</td>
<td>HPPL* Power 250/30 Rigid PVC; NON-adhesive</td>
<td>39-3(\frac{3}{8})&quot; x 47-(\frac{1}{8})&quot; ~ 0.046 in.</td>
<td>Pale Yellow; Matte surface</td>
<td>UL1994-listed as CC-RIGID. 12.5 times brighter than Standard Glow. IMO A.752(18).</td>
<td>250 / 30 mcd/m²</td>
<td></td>
</tr>
<tr>
<td>81-1275</td>
<td>SHPPL** Power 450/60 Rigid PVC; NON-adhesive</td>
<td>39-3(\frac{3}{8})&quot; x 47-(\frac{1}{8})&quot; ~ 0.049 in.</td>
<td>Yellowish; Matte surface</td>
<td>UL1994-listed as CC-RIGIDHI. 22.5 times brighter than Standard Glow. IMO A.752(18).</td>
<td>450 / 60 mcd/m²</td>
<td>For areas with poor lighting and very specific requirements, demanding THE BRIGHTEST.</td>
</tr>
<tr>
<td>81-1028</td>
<td>SHPPL** Power 600/90 Rigid PVC; NON-adhesive</td>
<td>39-3(\frac{3}{8})&quot; x 47-(\frac{1}{8})&quot; ~ 0.056 in.</td>
<td>Yellow-greenish; Matte surface</td>
<td>30 times brighter than Standard Glow. IMO A.752(18).</td>
<td>600 / 90 mcd/m²</td>
<td></td>
</tr>
</tbody>
</table>

**PERMALIGHT® Photoluminescent rigid aluminum sheets**

<table>
<thead>
<tr>
<th>Item-No.:</th>
<th>Description</th>
<th>Dimensions Rigid Thickness</th>
<th>Daylight Color</th>
<th>Standards</th>
<th>Excitation with 2 fc = 21.6 lx for 120 minutes</th>
</tr>
</thead>
<tbody>
<tr>
<td>81-60007</td>
<td>Aluminum in sheets; Power 150/22 NON-adhesive</td>
<td>39-3(\frac{3}{8})&quot; x 47-(\frac{1}{4})&quot; ~ 0.033 in.</td>
<td>Yellow-greenish; Matte surface</td>
<td>UL1994-listed as CC-ALU. NYC Local Law 26 RS6-1/6-1A</td>
<td>MEA #302-05-M BR: 36-9-6 UV</td>
</tr>
</tbody>
</table>

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For ready-made UL924-listed EXIT Signs, UL1994-listed Photoluminescent Egress Path Markings and safety signs, please see our MAIN CATALOG…

Customer Service
Call us with your photoluminescence-related questions. Whether it is about the material, its properties, Codes and standards, …
We are here to assist you, so that you can assist your customers!

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- Quick quotations
- Fast shipments
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- Code- and standard compliant

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