The Terrapin® S line of hardcoats is optically clear, highly scratch resistant, and offers excellent protection from chemical solvents and cleaners. With its innate flexibility and thermoformable characteristics, Terrapin S is often the chosen film for touchscreen and lens applications.

**Key Benefits:**
- High optical clarity.
- Retains substrate flexibility.
- Excellent abrasion and scratch resistance.
- Enhanced pencil hardness.
- Excellent chemical resistance to household cleaners and industrial solvents.

**Primary Applications:**
- High-end overlays.
- Touchscreens.
- Flat panel electronic displays.
- Signature capture devices.

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Surface Finish</th>
<th>Abrasion Resistance</th>
<th>Scratch Resistance</th>
<th>Chemical Resistance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Terrapin S PC Clear</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Terrapin S PET Clear</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Custom Hardcoat Solutions**

With a fully staffed R&D department of chemists and engineers plus full scale testing capabilities, Tekra offers an unprecedented level of customization possibilities. Tailoring chemistries is not a service offered by most coaters so, at Tekra, we take great pride in developing solutions to solve unique challenges. Whether refining an existing coating or developing a whole new coating around exact specifications, Tekra is the source for custom hardcoat solutions.
Since the installation of our first coating line in 1984, Tekra has been a worldwide leader in hardcoated plastic film. We’re proud to offer a wide range of our hardcoated films, allowing our customers to create new products and to add value or distinguishing characteristics to their existing products. It’s been a win-win proposition.

Our proprietary hardcoat formulas provide many performance benefits over uncoated films. Now, various surface finishes, abrasion resistance, chemical resistance, and other functional characteristics are within reach.

Tekra’s hardcoat brands include Marnot Advanced™, Marnot® XL, and ProTek® for membrane touch switch overlays and nameplates; and Terrapin® for flat panel and LCD displays. These brands are coated and stocked in polyester and polycarbonate versions. We also toll coat customer supplied specialty substrates.

So whether a print receptive coating, a functional coating or a coating to enhance product appearance is needed, you can count on Tekra to deliver a variety of specially designed protective hardcoats on various plastic substrates.

**Custom Hardcoats**

**Designed With Specific Applications in Mind**

Tailoring a custom coating to a highly specific customer need is Tekra’s core competency. Our fully staffed R&D department works collaboratively with customers to develop unique custom coatings for specific applications.

From development and formulation, to coater trials, to final production, our chemists and engineers continually leverage our R&D resources to meet customer needs. We have designed custom coatings for overlaminates, dry erase, and thermal transfer printable applications. The success stories are as numerous as the number of exclusive coatings developed for OEMs.

**State-of-the-Art Coating Capability**

To ensure maximum product integrity, Tekra’s coaters are enclosed in white room and Class 10,000 clean room conditions. Our coaters offer maximum flexibility by coating film with a thickness range of 1 mil (25 microns) to 30 mil (762 microns).

We provide UV and thermal curing capabilities – using solvent or water based coating technologies. Tekra also offers in-line masking and corona treatment to create a one-step coating process. At Tekra, you can expect precision and efficiency… it’s how we deliver high performance solutions.

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**Typical Coating Types**

- Matte and Varied Textures
- Scratch Resistant
- Chemical Resistant
- Low Iridescent
- Anti-Glare
- Anti-Reflective
- Anti-Newton Ring
- Anti-Microbial
- Anti-Graffiti
- Anti-Static
- Hydrophilic
- Hydrophobic
- Light Diffusion
- Dry Erase
- Print Receptive
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- High-end overlays.
- Touchscreens.
- Flat panel electronic displays.
- Signature capture devices.

### Terrapin Performance Attributes

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Surface Finish</th>
<th>Resistance Rating</th>
<th>Pencil Hardness</th>
<th>Low Iridescence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Terrapin S PC</td>
<td>Clear</td>
<td>☒</td>
<td>☒</td>
<td>☒</td>
</tr>
<tr>
<td>Terrapin S PET</td>
<td>Clear</td>
<td>☒</td>
<td>☒</td>
<td>☒</td>
</tr>
</tbody>
</table>

### Coating Capabilities

<table>
<thead>
<tr>
<th>Coatings Applied</th>
<th>UV, solvent, waterbased</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coating Viscosity</td>
<td>1-500 cPs</td>
</tr>
<tr>
<td>Wet Coating Thickness</td>
<td>1-50 microns</td>
</tr>
<tr>
<td>Maximum Coated Web Width</td>
<td>61 inches</td>
</tr>
<tr>
<td>Maximum Web Width</td>
<td>63 inches</td>
</tr>
<tr>
<td>Maximum Film Gauge</td>
<td>30 mil</td>
</tr>
<tr>
<td>Minimum Film Gauge</td>
<td>1 mil</td>
</tr>
<tr>
<td>Maximum Roll O.D. on Rewind</td>
<td>40 inches</td>
</tr>
<tr>
<td>Core I.D.</td>
<td>3, 6, or 10 inches</td>
</tr>
</tbody>
</table>
Marnot® XL is a protective hardcoat offering superior abrasion, scratch, chemical resistance and pencil hardness. Coated one or two sides in either clear or matte, Marnot XL films offer unique solutions to the appliance, automotive, membrane touch switch, nameplate, and lens markets.

Marnot XL MaxPass is an ultra-shrink-resistant polyester substrate that provides exceptional UV ink multi-pass printability – delivering at least 20 passes of traditional UV cured ink with adhesion scores of four or better.

Marnot Advanced™ is the next generation clear protective hardcoat that supports many of the same applications as Marnot XL. These films deliver improved pencil hardness and enhanced resistance to chemicals including sunscreen and DEET. Marnot Advanced LI features low iridescence (corona) on the coated surface reducing the undesired rainbow or oily sheen present in other hardcoats after printing.

Key Benefits:

- Excellent abrasion and scratch resistance.
- Enhanced pencil hardness.
- Excellent chemical resistance to household cleaners and industrial solvents.
- Outstanding for embossing and die cutting.
- First and second surface printability with solvent and UV inks, including clearing inks.

Primary Applications:

- Appliance overlays.
- Interior automotive.
- In-Mold Decorating (IMD).
- Membrane touch switches.
- Nameplates.
- Lenses.

### Marnot Performance Attributes

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Surface Finish</th>
<th>Resistance Rating</th>
<th>Pencil Hardness</th>
<th>Low Iridescence</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Abrasion</td>
<td>Scratch</td>
<td>Chemical</td>
</tr>
<tr>
<td>Marnot XL Clear PET</td>
<td>Clear</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marnot XL Matte PET</td>
<td>20, 35, 55, 75, and 90 GU matte levels</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marnot XL AG PET</td>
<td>Anti-Glare matte</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marnot Advanced LI PET</td>
<td>Clear</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marnot XL Clear PC</td>
<td>Clear</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marnot XL Matte PC</td>
<td>20, 35, 55, 75, and 90 GU matte levels</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marnot XL Textured PC</td>
<td>Matte/Velvet</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Marnot Advanced LI PC</td>
<td>Clear</td>
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</table>
Designed to complement the Marnot® line, ProTek® hardcoat films provide OEMs with attractive options for functionality and appearance. Customers requiring fine textures or UV resistance can rely on ProTek polyester films for optimal performance.

Our two ProTek hardcoat lines provide abrasion, scratch and chemical resistance, along with the ability to accept multiple passes of UV inks.

ProTek Fine Texture Polyester features a soft matte hardcoat delivering abrasion, scratch and chemical resistance, along with pencil hardness.

ProTek Weatherable Polyester is a clear hardcoat that provides abrasion, scratch, and chemical resistance. Featuring increased pencil hardness and UV resistance from the sun, this hardcoat prevents film yellowing and degrading when exposed to outdoor conditions.

Key Benefits:
- Attractive textured finishes.
- Excellent abrasion and scratch resistance.
- Enhanced pencil hardness.
- Excellent chemical resistance to household cleaners and industrial solvents.
- Outstanding for embossing and die cutting.
- First and second surface printability with solvent and UV inks, including clearing inks.

Primary Applications:
- Membrane switch overlays.
- Outdoor labels and overlays.
- Control panel.
- Nameplates.
- Faceplates.

### ProTek Performance Attributes

<table>
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<th>Chemical</th>
<th>Pencil Hardness</th>
<th>Low Iridescence</th>
</tr>
</thead>
<tbody>
<tr>
<td>ProTek Fine Texture PET</td>
<td>Fine Texture</td>
<td>☀️</td>
<td>☀️</td>
<td>☀️</td>
<td>☀️</td>
<td>☀️</td>
</tr>
<tr>
<td>ProTek Weatherable PET</td>
<td>Clear</td>
<td>☀️</td>
<td>☀️</td>
<td>☀️</td>
<td>☀️</td>
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Our experienced sales teams can help direct you to the right hardcoat product for your application. Visit Tekra.com or call us at 800-448-3572.
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<th>Chemical</th>
<th>Pencil</th>
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<tbody>
<tr>
<td>Low</td>
<td>Iridescence</td>
<td></td>
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</table>

### Terrapin Performance Attributes

- High Performance
- Solutions