

## Differences in Weatherable Films Offered by Tekra

*Knowing your final application is the key to selecting the proper weatherable film...*

Tekra offers a handful of products to choose from when it comes to demanding weatherable applications. There are two primary drivers when selecting the proper material: your final application and outdoor life expectancy of the product. By determining these two factors, you can select the correct product for the end use application from the materials below. Now, let's see what each film has to offer.

The ProTek<sup>®</sup> line of Tekra coated products offers the [ProTek<sup>®</sup> Weatherable Clear Heat Stabilized Hard Coated Polyester](#) for outdoor use. This material is made up of Melinex<sup>®</sup> ST725, which is a DuPont Teijin Films<sup>™</sup> heat stabilized polyester base film. Tekra applies our custom clear weatherable hardcoat to the base film. The final product is ProTek<sup>®</sup> Weatherable Clear Heat Stabilized Polyester which blocks UVA, UVB, and UVC light. It is tested using a Xenon Arc machine and after 2000 hours of simulated weather testing it has a yellowness index of 1.1, which translates to roughly 7-10 years of outdoor resistance.

In addition to the outdoor endurance, ProTek<sup>®</sup> Weatherable product offers all of the characteristics of Tekra's hardcoated films: excellent chemical, scratch, and abrasion resistance. The film can be first surface printed with corresponding weatherable inks when your application calls for it. This allows the printer to print on the second surface to register the print, and then print on the first surface for clearing windows, textured areas, etc. When the printer doesn't have to blind register the print they reduce scrap and ultimately save money.

If your application calls for UV resistance, but the durability of a hardcoat is not required, DuPont Teijin Films<sup>™</sup> offers the STCHUV series of polyester films. While this uncoated film is not fully weatherable, these materials have UV inhibitors that block UV transmission below 375nm and are available in [2 mil](#) and [5 mil](#) thicknesses.

SABIC's line of weatherable coated polycarbonate products fall under the HP coated films offering. [LEXAN<sup>™</sup> HPxxW](#) films are available in various matte levels which are notated as: HP20W, HP40W, HP60W, and HP92W. SABIC tests their materials using a QUV Accelerated Weathering Tester for 1000 hours, resulting in a yellowness index of less than 3.0. In addition to QUV testing, SABIC uses Xenon Arc testing and with 1000 hours of testing the yellowness index is less than 2.0. The LEXAN HPxxW materials are a hardcoat and offer scratch, abrasion, and chemical resistance along with the weatherability. However, unlike the Tekra hardcoat they cannot be first surface printed.

Unsure of which material is best for you? Contact your Tekra sales rep for help with material selection and samples!