

Thermoformable PET for In-Mold Electronics

In Mold Electronics (IME) is a disruptive technology that is transforming the way companies design & manufacture electronic devices. IME with capacitive touch technology is poised to replace traditional membrane switches as the preferred technology solution for OEM's and consumers. By lowering cost and weight, and by requiring fewer assembly steps, IME technology can improve the overall user experience by integrating the human machine interface (HMI).

Polycarbonate (PC) film substrates have been used almost exclusively for IME due to good formability, however poor chemical resistance requires PC films to add an off-line hardcoat protective layer. Meanwhile Polyester (PET) films have excellent chemical and flex resistance, but formability performance has been limited to shallow draw depths.

A new and unique formable PET from DuPont Teijin Films™ (DTF), offers superior chemical & flex resistance, with formability now comparable to that of PC films. The Melinex® D784 is a developmental product, and Tekra has limited Melinex® D784 production rolls available in 800 ga (200 um) & 1000 ga (250 um) for customer qualifications. Product scale up will continue in the near term, with full commercial introduction of Melinex® D784 expected later this year.

Melinex® D784 is targeting IME applications in several markets including Appliance, Automotive, Consumer & Medical Device. These segments value aesthetics, design freedom, performance, cost, and reliability. Several Melinex® D784 film evaluations are currently underway in the US, and future trials are planned.

Please contact your local Tekra Sales Representative for samples or any questions regarding Melinex® D784 formable PET film.



RTape Application Tapes and Premasks

Tekra stocks a variety of RTape's Conform® Application Tapes with RLA® Release Liner Adhesion. The Conform® series adheres to hard to stick to release liners helping eliminate materials from sticking together. This especially helps keep graphics stay in place in roll form. Materials are available in a variety of paper grades with adhesive tack levels ranging from low to high. Several of the products Tekra carries include:

Conform® 4050 RLA - A standard weight paper application tape with a **medium** tack (12-14 oz. on steel) rubber adhesive. This product is designed for small to mid-sized die cut or pre-spaced vinyl and printed graphics.

Conform® 4075 RLA - A standard weight paper application tape with a **high** tack (16-18 oz. on steel) rubber adhesive. This product is also designed for small to mid-sized die cut or pre-spaced vinyl and printed graphics.

Conform® 4750 RLA - A premium grade application tape with a **medium** tack (12-14 oz. on steel) rubber adhesive. This product is a superior choice for fleet graphics and aids in the installation of both medium and large graphics.



In addition to the Conform® series, Tekra also carries **ApliTape™ 4000** premask which is a **low** tack (6-8 oz. on steel) rubber-based adhesive designed as a protective masking for large format digital graphics. Contact us today at 1-800-448-3572 or visit us at www.tekra.com for more information.

Spring is in the Air: Tradeshows Bring New Printers and Perfectly Paired Medias

Tekra's spring tradeshows were a success! With two back-to-back events covering the entire span of our digital market, we exhibited at both ISA's Sign Expo in Orlando, FL and DScoop's Solution Showcase in Dallas, TX. Both shows brought great conversations, probing questions and an array of new ideas.



ISA's Sign Expo 2018 was held at the Orange County Convention Center in sunny Orlando, FL March 19th-21st. This show offered everything from printer platforms to media solutions to installation machinery. One of the highlights of the show was the announcement of the **HP Latex 'R' Series**. This printer

embodies latex printing quality with flatbed capabilities. Its ability to print rigid substrates is unfounded, as it combines the vivid color gamut of the latex print, with the glossy white, and ability to print thick gauge sheet material of a UV flatbed. Available for purchase in May, 2018, the soft-launch at the Sign Expo promised it to be a game-changer.

HP kept right on going at DScoop with their technological advancements. In Dallas, you could see their new "HD" series press. This is an **HP Indigo** press that offers "HD" quality printing. This new printing system was designed for the B2 sized presses and doubles the original resolution to 1625 dpi. This means smoother, more vibrant images that can compete with offset quality prints.

Our teams met with hundreds of attendees between both shows, showing media to fit both of these new platforms, as well as media to serve both the commercial side of **HP Indigo** print, and the **wide format** side of the signage community. The spring tradeshow season is always an exciting time in the industry, and these events certainly didn't disappoint.

Tekra's Starting Line Up...

With the arrival of spring comes the start of another baseball season where each cities' fans have visions of their team having a successful season. Here in metro Milwaukee, we are brewing up a winning product line that we believe gives our customers' their best chance for success.

The following Tekra "lineup card" was assembled from a six month review of the most commonly requested films, adhesives and inks products:

Leading off and playing centerfield is [3M™ Adhesive Transfer Tape 467MP](#). A real crowd pleaser for graphic attachment applications, 3M™ 467MP Adhesive Transfer Tape uses 2 mils of 3M's 200MP adhesive. This adhesive system performs well in variable environmental conditions including exposure to harsh chemicals.

Batting 2nd and playing second base is [LEXAN™ 8B35 Polycarbonate](#). The spark plug of the team, LEXAN™ 8B35 is a velvet/matte transparent polycarbonate film from SABIC that is typically used in applications such as backlit displays and for diffusing light. Tekra stocks this material in 5-20 mil in both roll and sheet form.

Hitting 3rd and playing leftfield is [Melinex® ST polyester films](#) – One of many all-stars on the team and the industry standard for heat stabilized polyesters, Melinex® ST films offer lot-to-lot dimensional consistency and supply continuity unlike any film type.



In the cleanup spot and playing right field is [JetView™ UV Inkjet Polycarbonate](#) – This line of inkjet films offers superior ink anchorage, even when adhesive laminating post-print. These films are designed to bond with the ink, allowing for vibrant colors, while passing the ASTM D3359 cross hatch tape test for ink adhesion.

Our power hitting first baseman, hitting 5th, is Tekra's very own [Marnot Advanced Low Iridescent Polycarbonate](#) and [Polyester](#). These films are hardcoated films that are chemical, scratch and abrasion resistant. They combat the iridescence or 'rainbow' effect that commonly occurs on a film once it is hardcoated and printed.

		TEAM <i>Tekra</i>	
Opponent _____		Location <u>New Berlin, WI</u>	Date <u>April 2018</u>
Order	NO.	Player	Position
1	2	3M™ Adhesive Transfer Tape 467MP	CF
2	5	LEXAN™ 8B35 Polycarbonate	2B
3	9	Melinex® ST Polyester Films	LF
4	33	JetView™ UV Inkjet Polycarbonate	RF
5	7	Marnot Advanced Low Iridescent Polycarbonate and Polyester	1B
6	4	3M™ Adhesive Transfer Tape 9471LE	SS
7	10	Dura-Go® Rigid Vinyl (PVC) Film	3B
8	11	Loctite® ECI 1010 & 1011	C
9	8	SABIC's LEXAN™ 8010	P

Batting 6th, is our sleek fielding shortstop, [3M™ Adhesive Transfer Tape 9471LE](#) which is our number one pick for tough bonding applications. The modified acrylic adhesive system used in this 2 mil transfer tape is specially designed to bond well to low surface energy (LSE) substrates while still having great chemical resistance.

Tekra's gold glove third baseman, [Dura-Go® Rigid Vinyl \(PVC\) Film](#), bats 7th. Our star performer in our HP Indigo Print-ready line, these films, offered in a range of gauges from 10-24 mils, can be coated on one or both sides. Our high quality vinyl combined with our top of the line coating, perfectly marry to ensure a gorgeous print with optimal adhesion.

Hitting 8th, and catching, is [Loctite® ECI 1010 & 1011](#) – these high conductivity Henkel inks outperform standard conductive inks by offering lower Ag ink consumption (cost) and increased design flexibility & sustainability.

Last, but not least, is our pitcher, [SABIC's LEXAN™ 8010](#) which is the clear gloss/gloss polycarbonate film is used in a variety of applications including in-mold decorations, consumer electronics, and appliance overlays. This material is stocked in .007 - .030 in roll or sheet form as well as stocked .040 48" x 24" sheets.

That is our starting lineup of most requested products, but don't forget Tekra has a full team of products that can help make your business winner. To request a sample, request a quote, or for more information on these or other Tekra products, please visit www.tekra.com.