

TEKRA NEWS

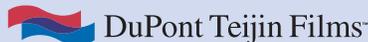
IN THIS ISSUE

- *ToneKote for Toner Based Presses*
- *MicroChanneled Liner 200MP*
- *Tekra's 75th Birthday*

DISCOUNT & OPPORTUNITY BUYS



WHITE PAPERS



White Paper: Polyester Films for Medical Device Applications

Do you have an interest in developing new applications in the medical industry but are unfamiliar with FDA and cGMP requirements? Tekra has more 20 years of experience representing Dupont Teijin's films into medical diagnostics and we've jointly authored a whitepaper about selecting polyester films to be used in the technically demanding field of medical devices. Request a copy of the paper on Tekra's website.

[Click here to request the white paper](#)

WEBSITE TOOLS

Need Help? We're Just a Click & Chat Away

Have you seen an image like this float across your screen on www.tekra.com? If so, we're not trying to bother you. It's one of our customer service representatives (in this case Justin) offering to assist you with our Live Chat. We have dedicated and knowledgeable people waiting to help you find the products or answers to questions you are looking for. Give them a "Click" and Chat em up!



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Changing With the Times



As readers of Tekra News know by now, Tekra will be celebrating 75 years in business at the end of July. Our diamond anniversary has prompted both research and a lot of rummaging through our corporate archives to better understand our history. We turn 75 in very good company with other firms also founded in 1938 such as Pioneer, Samsung, Columbia Sportswear and a well-known name in plastics circles, Molex.

TEKRA SPOTLIGHT

To stay in business this long, having the ability to change is a necessity. Tekra began as Textile Krafts in the book binding supply business before seeing greater opportunities in plastic films and adhesives. Molex invented a moldable plastic and started making flower pots

before becoming one of the world's leading providers of electrical connectors and assemblies. Columbia was a hat distributor that began to make their own clothing lines only after getting frustrated with poor quality from their suppliers.

As mentioned in an earlier article, our Company started when the U.S. economy was barely recovering from the Great Depression. We have been unable to find financial records from our first five years in business but do have a copy of **Form 1120-Corporate Income Tax Return** from 1943. It shows sales of \$303,817.95 and is filled out in pencil. We earned only \$10,588 in net income. Times have certainly changed as the Company carried inventory of less than \$14,000. Here's hoping our CFO doesn't read the newsletter.

Layflat and MicroChannel lined 3M™ High Performance Acrylic Adhesive 200MP products

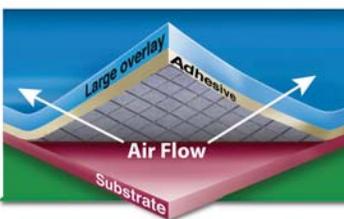
MicroChannel liners are now available on **3M™ High Performance Acrylic Adhesive 200MP products**. MicroChannel liners allow for trapped air to easily escape upon application helping to eliminate bubbling and wrinkling. Overlay application

Adhesive 200MP Products on high surface energy plastics and metals with the added benefit of easy application.

FEATURED PRODUCT

Simply order 3M™ Adhesive Transfer Tape 467MC or 468MC and start to experience the benefits of MicroChannel liners today!

3M™ Laminating Adhesive 200MP products now also come standard on layflat liners. The specialty polycoated kraft paper provides improved dimensional stability in high humidity storage, processing, shipping and application environments. You may buckle, ripple or sag in the heat of the summer sun, but your adhesives no longer will.



has never been easier! You'll experience the same performance you've become accustomed to using 3M™

Digital Toner Presses & Plastic Films....Evolving Together



The evolution of digital printing on plastic films started with presses like HP Indigo in the early 2000's and then quickly included UV and solvent inkjet printing. The one digital print method that lagged behind in synthetic printing was digital toner. The barrier to market was that toner presses operated at temperatures too high for most plastic films and the adhesion of toner to film was often insufficient for many applications. However, with recent improvements in press technologies, toner chemistries and Tekra's new films, high quality toner film printing is possible!

Tekra's **ToneKote** line of digital coated films are expanding market opportunities for toner printers and increasing their bottom line. The ToneKote coating allows the film to accept toner with excellent adhesion while insulating the film from higher temperatures eliminating most heat related issues. The ToneKote line of film includes:

Polyester- Various gauges including 5,

7, and 10 mils thick in white, clear, or matte are available. Polyester applications include point of purchase signage, overlays, transparencies, and durable reverse printed labels. **Rigid Vinyl-** Available in 10 and 15 mils, white matte/matte rigid vinyl coated two sides. Great for applications like gift, loyalty, and membership cards and point of purchase signage. **Label Stock** – A variety of face stocks including vinyl, polyester, and paper with both permanent and removable adhesives for all your labeling needs.

ToneKote films have been tested on a variety of presses including Xerox iGen and Docucolors, Xeikon, Konica Minolta, and Canon. With the large variety of presses in the market including new press introductions, we always advise customer to test the free samples we provide throughout their entire process for suitability. Call us today for your **free test samples** and let ToneKote move your business to greater heights and profits. [Click here for more ToneKote info.](#)

Pencil Hardness – What it is & Pitfalls

TECHNICAL TIPS

Pencil Hardness measurements have been used by the film industry for many years to determine the scratch hardness of a particular coated film. The test for pencil hardness is rather simple to do, however results may vary depending on the equipment and procedure used for the test. Every effort should be made to standardize the test, equipment, and technique followed to get results that can be comparable.

What is “Pencil Hardness”?

Hardness, in the plastic film industry, is the capacity of a given coated surface to resist scratching, marring or gouging. When expressing the measurement of pencil hardness, a value scale is used that ranges from softest 6B, to 9H, the hardest. Typically, films such as polyester and polycarbonate fall in the ranges of B to 4H depending on if the film is

coated or uncoated. The value recorded is the hardest pencil lead that does not mar the surface of the coating.

Common Pitfalls

The biggest pitfall of the pencil hardness test is the variety of associated test procedures used to determine a film’s hardness value. Although there are two standardized procedures, the reliability of the testing can be impacted by pencil type, sharpening, and by the visual interpretations required. In addition, many companies have designed their own test methods to determine their films pencil hardness. It is not uncommon to lessen the weight

used within the hardness tester. Also coated films are scored as passing if the coating layer itself is not disrupted thereby impairing the coating functionality. When comparing different films, ALWAYS check the test procedures carefully.

To review what Tekra has done to insure uniform testing, please refer to [Tekra’s Tek Tip on Pencil Hardness at www.tekra.com](http://www.tekra.com).



Pencil Hardness Scale



FEATURED PRODUCT

Release Liner Reliance

Tekra is proud to offer Mylar® RSX951, a silicone coated release film from [DuPont Teijin Films™ \(DTF\)](http://www.dupont.com), to our expanding polyester product portfolio.

Typically, a release liner doesn’t draw the attention like other intricate components incorporated in pressure sensitive labels. However, having a reliable, consistent and functional liner ensures a label’s performance, thus adding value to the finished label stock.

Mylar® RSX951 is designed for use in cast and release industrial settings and in pressure sensitive label applications. An advantage to our silicone coated release liner is Dupont’s in-line coating process. This improves the adhesion of the silicone to the base polyester polymer, resulting in superior liner performance.

Mylar® RSX951 release liner values range between 15 to 25 grams per inch. For best results, we recommend that you test the performance of the product’s release values in each application to verify actual values.

Mylar® RSX951 can be manufactured in a variety of gauges (92,105,120, 140, 142, and 200). Contact Tekra Customer Service for details on our stocking and make to order program.



RESEARCH & DEVELOPMENT CAPABILITIES

It’s a Nano World.....

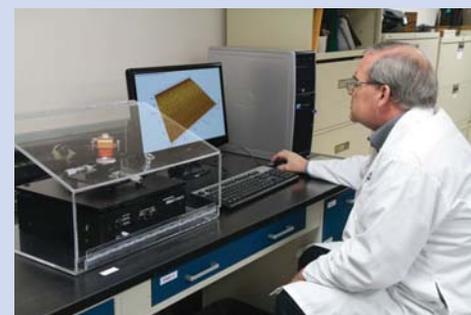
Over the past few years, Tekra has been working with nano-scale particles in many of our coating solutions. By selecting the right size, shape, material and concentration of particles, we can change the properties of the film substrate. Characteristics from texture, to light transmission or reflectance, ink adhesion, and pencil hardness can be managed with the addition of very small particles to our coatings.

The need to study the coating layers and particles at such a small scale led to Tekra acquiring an atomic force microscope or “AFM”. An AFM provides a 3D profile of the surface of materials on a nano-scale by measuring forces between a sharp probe (<10 nm) and the surface at very short distance (0.2-10 nm probe-sample separation). The probe is supported on a flexible cantilever. The AFM tip “gently” touches the surface and records the small force between the probe and the surface. It works much like a needle on a record player and can produce a detailed topographical map.

Our research and development engineers use the AFM to study the concentration, orientation and position of the filler particles as we design new films for customer projects and broad market

offerings.

Tekra has long had the ability to create custom filled and matted coatings. We are excited by the new material science developments studying nanoparticles in areas where films are commonly used. In



Tekra’s atomic force microscope in use in our Research & Development lab

the future we expect to be creating products with anti-microbial, self healing, unique barrier and UV resistant properties. If you have a need for a film in and around these areas or just have a problem or question that normal visual inspection or standard microscopy cannot explain please contact us for assistance.

