

3 Ways Industries Are Using Paper Lamination

Manufacturers have been using the process of lamination globally for over a century. One of the earliest variations of this process comes from the French chemist Edouard Benedictus.

In 1903, Benedictus accidentally coated a glass flask with a plastic compound; when the flask fell to the ground, the chemist was shocked to see the glass merely shatter and not break.

This concept behind laminated glass paved the way for several innovations from industrial manufacturers—including those in the paper industry. The modern applications for paper lamination are very distinctive.

- Enhanced product protection.

Laminations are ideal for creating a protective layer against substances such as water, oil, or grease; and is a common requirement in food and beverage packaging.

To ensure products remain sterile until they are ready for use, a vapor

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barrier—a thin, impermeable coating—can be used in conjunction with various laminates to keep moisture and oxygen out of the packaging.

- Security from counterfeiting.

Paper manufacturers often use specially colored laminating adhesives as a security measure against counterfeit ticketing. When a laminate-treated ticket is torn, the unique color is clearly visible, signifying the ticket's authenticity. These specialized tickets are resilient enough to withstand contact with water and mild bending.

This practice is used with many types of tickets, such as those for sporting events, musical performances, and even public transportation.

- Light “Block Out” Barriers.

Some laminations are used to create an inside adhesive layer able to block the transmission of light. This “block out” coating is popular for many products that need to keep light from showing through the other side.

These products include advertisements (aisle signs or those found in store windows), trading and playing cards, photographic light boxes, and many others.



Learn About Our Paper Lamination Services

At Sierra Coating, we have over 20 years of experience providing customers with consistent, high-quality laminated paper products. In addition to being ISO, FDA, and NSF compliant, our products and services are versatile enough to meet the requirements of any application.

For more information on the extensive lamination services we offered, please contact Sierra Coating today

Rising Trends in the Blister Packaging Industry

The U.S. packaging market has seen its share of difficulties in recent years—including high raw material costs and negative environmental impact—but trends on the horizon predict a brighter future for manufacturers, vendors, and consumers alike.

The market is evolving rapidly, largely due to the increased usage of blister packaging throughout the country. Blister packs are highly versatile products that offer several advantages to various consumer goods. The efficiency and

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popularity of blister packaging has sparked several notable



- *Enhanced protective features.* To provide added protection for consumer goods, vendors are utilizing higher-quality plastics and raw materials when producing blister packs. With the use of plastics, blister packs can safeguard any products from possible contamination—particularly in regards to medicine and medical devices. Thermoform plastics can instill blister packs with chemical and wear resistances as well as increased durability.
- *Product and technological innovations.* Manufacturers are constantly on the lookout for high performing solutions with low production

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costs—blister packaging offers both. Blister packs can be manufactured to provide products with longer shelf lives thanks to their anti-microbial qualities. Nanotechnology is also playing a larger role in blister packaging. The use of nanotechnology affords blister packs enhanced barrier protection and reduced weight of the package. This technology is in high demand by pharmaceutical companies requiring improved protection against moisture, oxygen, and other gases for their products; demand for nanotechnology-based packaging is expected to increase by 15% compound annual growth rate during the forecast period.

- *Demand for child safety.* There is a growing demand for blister packs that are safer for children, such as child-resistant and tamper evident products. Child-resistant products are a direct result of numerous poison-related injuries befalling children; non-secure packaging can lead to accidental ingestion of medicines. Tamper evident products also have a positive effect on the packaging market, since they can an early warning sign for avoiding questionable products.
- *Sustainability.* Certain packaging materials can adversely affect the environment. To combat this issue, packaging and manufacturing companies have been encouraged to develop more sustainable products and solutions. Current environmental regulations are forcing vendors to cultivate blister packs that are more eco-friendly; vendors are designing bio-degradable blister packs, which will be expensive to produce and will necessitate increased research to offset added costs.

These rising trends are expected to continue driving growth within the U.S. market, as manufacturers, vendors, and consumers strive for reliable packaging solutions.

Blister Packs: A Great Choice for Packaging

As important as products can be to consumers and manufactures, sometimes the packaging can be just as vital. Without proper and secure packaging, products can be stolen, tampered with or contaminated before they get into the hands of consumers.

No matter what side of the market you're on, producer or purchaser, damaged products equate to bad business. So many costs are already involved in the production and distribution of products, and consumers expect to receive functional products—why should both parties end up spending more in the long run?

There are numerous options for packaging, but blister packs many times are a superior choice for your products.

What are Blister Packs?

You might not be familiar with the name, but you’ve surely seen blister packs on store shelves. Blister packs are a type of plastic packaging commonly used for different consumer and pharmaceutical goods; a “blister” is a plastic shell that was thermoformed or plastic molded, then it is adhered to a paperboard or foil—blisters can also be bonded alone, which are called clamshell enclosures.

Blister packs protect products against varying environmental changes and shipping damage—while providing aesthetic value. Blister packs are often paired with custom designs to entice passersby.

Advantages of Blister Packs

Using blister packs offers several benefits to manufacturers and consumers, which include:

- *Product protection.* As mentioned, blister packs act as a barrier between your product and outside elements. The weather isn’t the only thing capable of damaging your product; before getting into the hands of consumers, products can experience all kinds of impact or possible contamination. If you’re buying medicine, be aware that the slightest impurity can make you seriously ill—blister packs can help keep you healthy.

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- *Evidence of tampering.* Products are individually sealed in blister packs, and the packs are designed to be torn in order to reach the product inside. Some blister packaging uses tamper-proof mechanisms and due to this, blister packs can quickly and easily inform consumers if their product has been mishandled or previously opened. Thanks to blister packs, consumers know when to stay away from potentially unsafe products.
- *Versatility of Use.* Blister packs can also be child resistant—these packs use a paper or film layer with a peelable adhesive that must be removed before reaching a product. Some blister packs, such as those made with 15-mil polyvinyl chloride, provide another layer of protection to products; blister packs made of harder substances with bitter-tasting coatings help deter children from chewing on them.

Blister packs are designed for high-speed production and high versatility. Blister packs are useful in various applications, and are often the most cost-effective, aesthetically pleasing, and safest option to package different products.

Thinking blister pack packaging might be the appropriate solution for your product? Sierra Coating Technologies can help. We have years of experience formulating and applying heat seal and heat activated adhesive coatings, many used in the blister pack process. Learn more about our adhesive coating services on our made to order page, and please feel free to contact us anytime.

Celebrating the Holidays with Sierra Coating's Adhesive Coatings!

It's that time of year again! Actually, holiday gift buying season starts earlier every year, but by now the odds are good that you have already picked up gifts either in the store or online. The odds are also extremely good that most of the products going under the tree are packaged in heat sealed blister packs, laminated or labeled.

At Sierra Coating, our adhesive coating capabilities play a major role in packaging many of the products you will buy or receive this season. Thanks to 20

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years of experience in coating and laminating, we offer our customers the best in a long list of adhesive coating services and products including:



Adhesives

- Heat-activated adhesives
- Pressure sensitive adhesives
- Cold seal or Cohesive adhesives
- Laminating adhesives for similar and dissimilar substrates with wet or dry laminations

Labels

- Pressure sensitive
- Water activated
- Permanent

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- Repositionable
- Weather resistant



One of the main advantages of relying on Sierra Coatings is our ability to customize our adhesive coatings to your unique needs. We take into account every variable, such as the activation temperature of your packaging equipment and dwell time to

determine the perfect coating for your application. The same custom and comprehensive approach goes into our lamination capabilities.

If your current adhesive coating and laminating services are putting a lump of coal in your stocking, then visit our website, or contact the adhesive coating and laminating experts at Sierra Coating today!

The Rebirth of American

Manufacturing

The reshoring of America is underway and gaining momentum. According to a survey from the Boston Consulting Group, 38% of the American manufacturing executives they polled are in the process of moving production back or at least considering the move to the U.S.A.

It was not too long ago that most manufacturers were touting the virtues of moving out of America to places like China and Central America. So why the change of heart? Why have companies joined Sierra Coating in embracing the “Made in America” movement? While patriotism does play a role in the decision, in the end, business is business and profitability is king. No matter what continent you make your products, if you cannot keep your costs down, the odds

of remaining competitiv



At Sierra Coating, we believe a variety of factors play a role in the rebirth of American manufacturing. They include:

- **Less Shipping**

The farther away you manufacture or convert your goods, the longer the shipping routes and times. Shorter trip equals lower costs, it is that simple.

- **Automation**

For years, countries like China and Vietnam could claim lower labor costs. However, thanks to innovations in manufacturing automation, it is possible to

make high quality products in America with less labor, faster, and more accurately.

- **Regulations**

While the U.S has always had tough and often costly environmental regulations, it is only recently that other countries have begun to catch up. The cost saving from less regulation overseas is starting to shrink.

- **Pride**

It is hard to replace the pride you get from actually seeing a product come to life. We think that it is this sense of accomplishment has been missing from America for far too long. Reshoring means having pride in your work, your products, your people, and best of all, your country.

- **Natural Gas**

At Sierra, we have become more competitive because of less reliance on foreign energy. There is a wealth of natural gas and energy to be used which provides a financial advantage.

While there are other more complex reasons for America's manufacturing renaissance, these five get at the core of the movement. The Sierra Coating family is excited about the future of manufacturing in the U.S., and we could not be more proud to be leading the charge towards a better America.

The Art of New Product Development

Creating, producing, and marketing an innovative and groundbreaking product is not an easy proposition. The pitfalls and risks are many and the costs can be great in terms of both time and money. Of course, succeeding means having a corner of the marketplace all to yourself, this can lead to profits and a boost to the cache of your company. The key to the entire process is having a partner rich in both experience and skill. At Sierra Coating, when it comes to custom coated and laminated specialty substrates, we are *the* new product development specialists. To discover what makes Sierra Coating a leader, let us take a closer

look at our process of bringing a new product



- **Raw Materials**

Whether you are dealing with a nonwoven, plastic, paper, or paperboard product, Sierra Coating will source, test, and choose the perfect raw materials and chemicals to fit your projects needs. Many times, because we have such a vast experience and selection of materials, we can point our clients in a previously hidden direction

- **Cost-Effectiveness**

Running lab tests on materials are just a part of picking the right one. We also run extensive economic studies and price out materials to match your budget.

- **Trials**

After arriving at the optimal materials, we take our clients through the often-difficult trial process. This entails picking a day and laying out a highly detailed trial plan, including all possible manufacturing techniques, quality control demands and complex design of experiments. On trial day we make up to 10+ versions of your product that you can run through your own specific testing and focus groups.

- **Tightening Up**

After you complete your testing and trials, Sierra Coating is there to make all necessary changes or upgrades quickly and cost-effectively. This also includes setting up all necessary converting, printing and packaging.

- **Bring It Home**

After all the exhaustive test, trials and quality audits, Sierra Coating is there to manufacture your new product, help with inventory launch, and help get the completed supply chain working.

For us, the bottom line is that we never let you stray from the path to success. We take all the guesswork, and hopefully the doubt, out of the process. If you are looking to create and launch a new and innovative product, then you need Sierra Coating on your side!

The Beauty of Paper Over Plastic

There is nothing like smelling a forest filled with beautiful plastic pine trees on a cool fall day. Wait. OK how about going green by planting five plastic trees for everyone you cut down? No, that doesn't work either.

The point? No matter how many "green" and "recycled" labels you slap on petroleum-based plastic products, they cannot and will never be as renewable as paper. Unlike trees, oil and gas don't put CO₂ back into the atmosphere and trees are a homegrown product that unlike plastic are not beholden to the ups and downs of oil and gas prices.

If it is both more environmentally friendly and often more affordable, why aren't more things made out of paper? One of the main reasons has always been that plastic outperforms paper at some tasks, like waterproofing and sealing.

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At Sierra, thanks to our innovative technology and methods we are bridging this ever-shrinking performance gap everyday. Sierra is able to coat the back or front of paper in order to enhance its ability. A great example is food and cleaning product packaging. Sierra can create water barriers and heat sealed packages, all

with our state-of-the-art recyclable coatings. It is hard to be more “green” than replacing PVC and other plastics with recyclable paper.

One of the other benefits to using paper is that major retailers like Walmart are now demanding that products reach very high standards of recyclability. The Walmart Sustainability Index grades the “Greenness” of products, if you don’t get a high enough index score, your product will not end up on the shelves of the world’s biggest retailers, and no one can afford for that to happen! Once again, the solution is paper, and thanks to Sierra, you can now easily replace plastics with coated paper products and suffer no fall-off in quality.

The next time you think you have no choice but to use hard or impossible to recycle plastics in your packaging, think again.

Think Green. Think Affordable. Think Effective. Think Paper.

What You Need For Great Food Packaging

There could not be a more exciting time to be involved in the food packaging industry. It feels like every day brings some new and innovative way to package the foods we eat. In order to bring today's hi-tech packaging designs into production and to the consumer, there are a few things that you must have. This blog will not only highlight those "must-haves" but also shine a light on how Sierra Coating Technologies offers them to our clients.



High-Quality Facility

It goes without saying that to produce a high-quality product you need a high-quality facility. In the food packaging industry, that means one thing, Good Manufacturing Practice or GMP for short. These general guidelines include making sure your facility:

- Is of suitable size, design, and construction
- Is clean and cleanable
- Has the right equipment with right personnel trained and experienced to run it
- Offers proper labeling, record keeping, and lab controls

Raw Material Standards

While GMP is more of a suggestion than a regulation, when it comes to the raw materials you use, FDA guidelines are set in stone. No matter the type of food you are dealing with, whether it is fatty foods, meats, or dry foods, you need the perfect raw materials to meet the exacting FDA food packaging standards. If you don't have access to these materials and a staff capable of understanding the intricacies of the FDA standards, you cannot be a successful food packager.

The next time you choose a coating company for an important food-packaging job, make sure they can offer you a facility that meets GMP guidelines,



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understands FDA regulations and requirements, and a staff that can get the job done right. At Sierra Coating Technologies, we can offer you all of the above, and more.