

Paper, Climate Change and Common Sense

The UN Intergovernmental Panel on Climate Change (IPCC) recently released updated projections about the effects of human activity on our planet, warning that inaction to immediately address climate risk will yield dire consequences.

How Chemical Companies Work with Toll Coaters

Introducing Sierra's Business Alliance Program

Though there are many keys to success in product development, two are most notable: speed to market and proof of production. To address the time and costs factors associated with developing a new product, business alliances are a great

way to work efficiently and effectively.

For example, many chemical companies invest heavily in the development of new products, but need to show proof of a successful production process and provide finished goods to show potential customers. By working with a coating company in the pre-market stage of product development, a chemical company can expedite a new coating to market.

Why Sierra Customers Toll Coat

According to Robert Porter Lynch's *Business Alliance Guide*, a "variation of product alliances is the joint manufacturing venture, where, because of scale costs, it makes economic sense to build a plant of large capacity, but no one company's market can support the entire production capacity" (page 59).

It is for this reason that contract and toll manufacturers exist — to absorb the fixed overhead costs associated with running a facility, providing clients with a way to create a purely variable cost method of developing new products.



Business Alliance Advantages

There are a number of benefits to forming a business alliance. Primary among them are access to production equipment and technical experience in coating.

When working with a manufacturer who has partnered with clients across a variety of industries, you benefit from having a highly knowledgeable product development expert with wide-ranging industry contacts.

Alliances also facilitate knowledge sharing between companies and can allow for new product applications in niche markets.

Sierra Coating's Chemical Business Alliance Program

As part of our Sierra Chemical Business Alliance Program, we are currently looking to form dedicated alliances with chemical companies that have developed innovative product solutions of their own. Sierra often recommends water-based chemicals for our clients' products in order to meet their specific needs.

As a trusted toll and contract manufacturer with services, such as raw material planning, our team works with paper mills, printers, and brand owners to help develop new products.

To best guide our clients in choosing the proper chemicals to use, Sierra also works with chemical companies to develop a solution for our client's requirements. Through this process, we facilitate growth for both our customers and ourselves.

What Our Clients are Looking For

Sierra serves clients across a wide variety of industries, but certain requirements come up more often than others. Our expertise is particularly pronounced in industries — such as the food and beverage, health and beauty, and retail

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industries, to name a few — that have product needs requiring unique and highly specialized chemical treatments.

We frequently receive inquiries about innovative food-safe packaging, eco-friendly packaging and other poly replacements, heat seal and blister pack coating, and high-end luxury packaging. These are fast moving spaces that require regular innovation and reinvention to not only stay ahead of trends but to keep products compliant with ever-changing industry standards and guidelines.

To learn more about the benefits of a business alliance with Sierra, including the unique toll and contract manufacturing benefits that we bring to the table, click here.

[Learn More About Sierra's
Chemical Business Alliance Program](#)

Why Raw Material Planning in

Manufacturing is Essential

You've heard the terms "toll manufacturing" and "contract manufacturing" before. In fact, you may have even read about them last year in our blog on toll manufacturing versus contract manufacturing.

Toll and contract manufacturing are both advanced tools for supply chain management. These types of manufacturing processes are usually utilized in new product development. They are very similar processes that can often be confused. There's an important, yet often overlooked, difference between the two.

Toll versus Contract Manufacturing

When you work with a contract manufacturer, you are essentially partnering with an independent manufacturer — they will source all of the raw materials, manufacture the contracted part, and deliver a completed product to you. In toll manufacturing, the company will manufacture your part, but you or an additional third-party is responsible for sourcing and delivering the raw materials.

The difference between the two lies in who is responsible in the risks associated with raw material planning. These risks often include the price, quality, and delivery of the raw materials. Toll manufacturing is often done by a raw material

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manufacturer to create a new product line for the company.

The toll manufacturer is assuming the risks associated with raw material planning and product manufacturing. Whereas contract manufacturing is considered a turnkey solution for clients, where the contract manufacturer is responsible for raw material planning and product manufacturing dates.

Why Raw Material Planning Matters



Businesses, manufacturers in particular, are increasingly relying on Just-in-Time (JIT) and other similar manufacturing processes. The JIT process is an inventory strategy to reduce costs associated with product storage.

A key element of JIT and related processes is raw material management. The entire process relies on the requisite materials being delivered to where they are needed at the time when they are needed, creating a steady inflow of material and outflow of completed parts. Sierra Coating specializes in raw material

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planning, skills which we put to use when partnering with you as a toll or contract manufacturer.

We maintain an in-house team of experts dedicated to raw material planning a wide variety of chemicals that we use during coating processes. The team includes a logistics planner, a raw material planning specialist, and two dedicated chemists. Our team procures the chemicals that your product requires, testing them on production equipment to ensure the product functions properly.

Trusting Your Partners with JIT Manufacturing

Though extremely important, raw material planning is only one part of a multi-stage process — JIT and other production streamlining methodologies must be maintained throughout the entirety of a production process in order to be effective.

At Sierra Coating, we follow through. After testing and procuring high-quality raw materials, we can manufacture and ship your products on a JIT schedule. Our raw material team works hand in hand with our manufacturing team to ensure that every step of the process runs seamlessly.

To learn more about the benefits of working with a toll and/or contract manufacturer, download our free eBook, *The Financial Case for Contract*

Manufacturing.



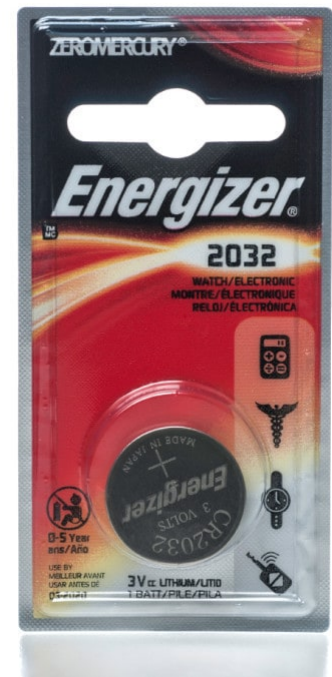
Rising Trends in the Blister Packaging Industry

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

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that offer several advantages to various consumer goods. The efficiency and popularity of blister packaging has sparked several notable market trends.



- *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.

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- *Product and technological innovations.* Manufacturers are constantly on the lookout for high performing solutions with low production 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

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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.

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

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continent you make your products, if you cannot keep your costs down, the odds of remaining competitive are low.



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.

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- **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!

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.