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Converting Your Product to be Eco-Friendly?

Tips from Sierra's Experts

The Growing Need for Sustainable Packaging

Throughout the world, manufacturers and retailers alike are facing a rising demand for sustainable, environmentally friendly products and, increasingly, sustainable packaging.

A recent Nielsen study illustrated this shift in consumer demand; surveying 30,000 shoppers from across the globe, a notable trend emerged, illustrated by the following figures: **55% of respondents were willing to pay more for environmentally friendly products, 52% have purchased one or more products from environmentally friendly companies, and 52% have purchased a product at least in part because it had eco-friendly packaging.**

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Walmart's Scorecard and its Impact on Packaging Design

One of the earliest adopters of sustainable packaging initiatives, Walmart introduced their Packaging Scorecard in 2006.

photo courtesy of Walmart®

The Packaging Scorecard provides packaging design guidelines for the various brands hoping to be sold at Walmart; these brands must design their product packaging in accordance with these specifications in order to meet eco-friendly regulations. The scorecard provides a list of nine metrics, ranging from greenhouse gas emissions caused by packaging production to recyclability and recyclability value.

Last year, Walmart doubled down on the initiative, augmenting it with their Sustainable Packaging Playbook. The Packaging Playbook builds upon these same ideas, placing emphasis on new initiatives such as consumer recycling.

Walmart's Scorecard and Playbook have prompted other retailers, large and small, to follow their lead; Amazon, for example, has launched Frustration-Free Packaging and box-reuse initiatives.

photo courtesy of Amazon®

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Bridging the Cost-Performance Gap

Until recently, bridging the gap between cost and performance was one of the biggest obstacles for brands exploring eco-friendly packaging solutions. Sustainable packaging options were traditionally both more costly and less effective than standard packaging methods, which discouraged brand owners from exploring eco-friendly alternatives.

Poly replacements — eco-friendly materials that can be used to replace unsustainable materials, such as polyethylene, polyvinyl chlorine (PVC), and low-density polyethylene (LDPE) — are ideal for improving the sustainability of packaging. Companies like Sierra Coating Technologies are committed to developing lower-cost, higher-performance poly replacements.

Common Challenges in Reducing Plastics in Packaging

When designing sustainable packaging, various factors must be kept in mind. Creating recyclable packaging is a great way to reduce the amount of plastics in the stream of packaging, but this process involves a unique set of challenges.

One of the biggest challenges, and certainly the most common, is creating a mixed-material package that remains recyclable. Few packaging products contain a single material; even aluminum beverage containers are made from several types of material. Although common, mixed-material packaging can present major issues for recycling facilities. Therefore, emphasis must be placed on minimizing material mixing and designing materials in a way that allows for easy separation.

Eco-Friendly Solutions for Food Packaging

Designing eco-friendly packaging for food products is even more complex. In this sector, designers must consider FDA guidelines, water and oil resistances, and moisture vapor transmission rates (MVTRs), among other factors.

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How to Choose the Right Eco-Friendly Packaging

Despite the many variables to consider when designing eco-friendly packaging, having a clear plan laid out can greatly simplify the process. First, decide what method you are interested in pursuing to create eco-friendly packaging and whether that method best suits your product. There are three primary ways to increase sustainability:

DECREASE

Decrease packaging size, thereby reducing your environmental impact footprint

RECYCLE

Utilize recycled materials to manufacture your packaging

SUSTAINABLE

Create packaging that can be easily disposed of in a sustainable manner

This last point necessitates further exploration, as there are three different eco-friendly disposal methods available.

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Recyclability

A recyclable material is any material that, after use, can be recovered, cleaned, broken down, and reprocessed into raw material. A wide range of materials can be recycled, including paper and paperboard, many types of plastic, and a variety of metals. Ease of collection, ease of reprocessing, and the cost of each must be considered when determining whether a material is recyclable.

Recycling does present issues, however. As discussed above, packaging made from disparate materials that cannot be easily separated generally can't be recycled, even if each material is individually recyclable itself.

Though recycling technology and infrastructure are improving, public access to recycling facilities and programs — especially for plastic — are still quite limited. Recycling processes are also costly, both in terms of financial cost and energy consumption. Finally, the types of materials that can be recycled — as well as the size and shape of materials — are individually determined by municipality, vary wildly from location to location, and can be very confusing for consumers.

Metal

Plastic

Paper

Glass

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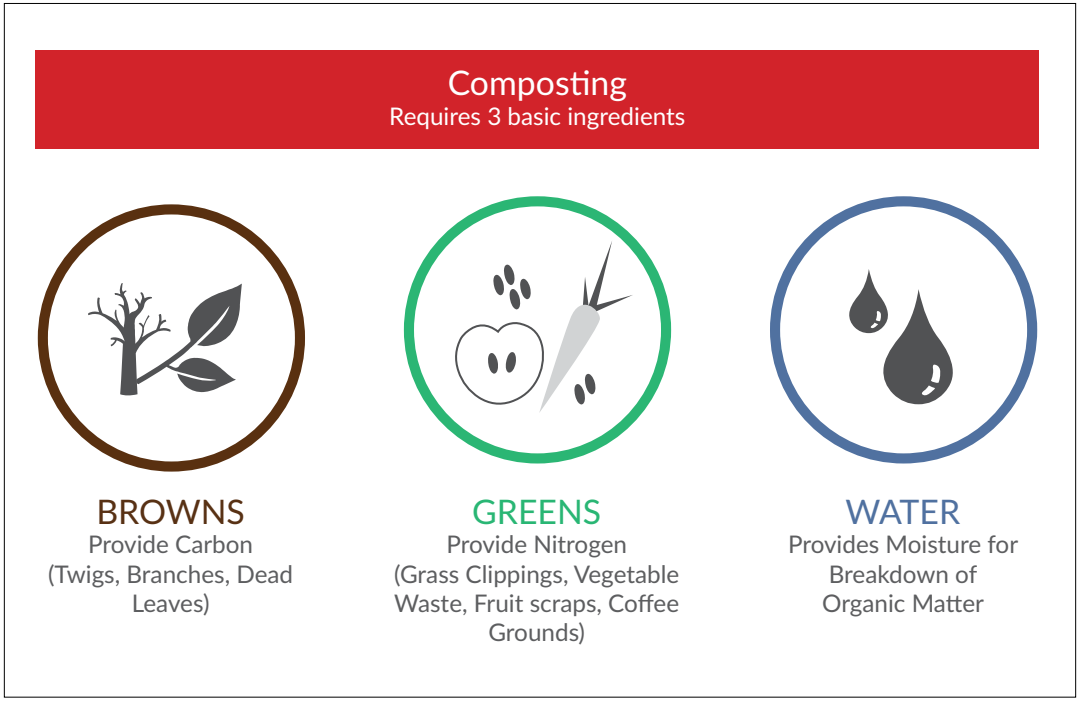
Compostability

A compostable material is any material that, when carefully managed in a controlled environment, decomposes into an organic state; in other words, the material reverts to nutrient-rich dirt.

Unlike recycling, composting can be performed at home, though it is a labor- and care intensive process, making it unappealing to all but the most motivated private citizens. And at a municipal level, despite the fact that major metropolitan areas like New York City are starting to implement public composting initiatives, access to composting programs is even more limited than access to recycling programs.



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Biodegradability

Although the terms “compostable” and “biodegradable” are often used interchangeably, they refer to two distinct processes. Though they both involve the decomposition of material into an organic state, compostable materials require care — regular turning, moisture control, and chemical level monitoring — while biodegradable materials will decompose into an organic state in a relatively short amount of time under ordinary environmental conditions.

BIODEGRADABLE

These items are capable of being decomposed by bacteria or other living things.

A compostable plastic fork, for example, will decompose in a composting box but, if left on the side of the street, it will remain solid plastic. A biodegradable plastic fork, on the other hand, will decompose in either scenario. Creating biodegradable packaging opens up a wide range of eco-friendly disposal options.

Developing Eco-Friendly Packaging with a Contract and Toll Manufacturer

Contract and toll manufacturers provide on-demand services, similar to Seamless and Netflix, for the industrial market. These services allow consumers to purchase what they need — no more, no less — exactly when they need it.

At Sierra Coating, we understand that the development of new products, such as sustainable packaging, is not only strategically important and time critical, but also cost sensitive. As an industry-leading toll manufacturer, Sierra Coating is well positioned to solve the various issues packaging manufacturers and brand owners face when developing eco-friendly packaging.

Sierra Coating is an industry leading toll manufacturer well versed in eco-friendly packaging.

Whether finding ways to expedite the process, offering proprietary eco-friendly and sustainable solutions, or processing raw materials in unique ways, Sierra Coating is proud to offer a wide range of top-quality services. The cost to the customer is little more than the variable cost of manufacturing, as we allow clients to avoid capital equipment investments, new or expanded facility expenditures, and other costs involved in producing a new packaging product.

Between our wide web coating and laminating technologies, expert staff, and selection of coatings and laminations — including recyclable, compostable, and biodegradable types — we can offer a solution that fits your unique timeframe, budget, and industry-specific requirements.

Are you looking to convert your product or package to meet sustainability standards?
Contact our paper experts today.

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About Sierra Coating Technologies

Sierra Coating Technologies operates as both a contract and toll manufacturer for brands and commercial printers. Sierra specializes in making products that help companies enter growing markets. Using our wide web laminating and coating equipment, Sierra brings high-quality, efficient manufacturing to the converting of paper and films. If your company wants to enter a new market segment, find a vendor to improve your supply chain, or create a better value model for your product; Sierra can help. With our years of product manufacturing and three coater/laminators, Sierra can deliver your product efficiently and with quality built in throughout the processing.

Read about the latest trends in laminations.

Download our Lamination Trends Report. >>

Looking to convert your product or package to meet sustainability standards?

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