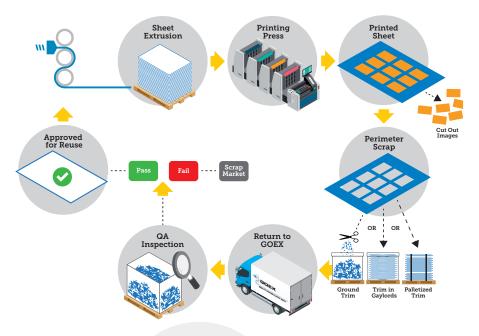


GOEX Sheetline

QUALITY CUSTOM PLASTIC SHEET

Volume 20

Material Recycling Flow Chart



This Issue

802 US Highway 14 East Janesville, WI 53545

GOEX

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Zero Here

Striving to minimize the environmental impact of our products, GOEX has a sustainability strategy in place that includes a continued focus on our **Zero Landfill** operating philosophy.

Highlights of this way of thinking include:

- Nearly 100% of the plastic resins in our facility are converted into finished goods, recycled back into saleable finished goods or sold to other plastic processors for reuse.
- Scrap we buy back from our customers is reused in our recycled content product lines.

Did you know GOEX offers recycled options in our HIPS, PETG, PP and PVC products?

- Paper, wood and other natural or manmade materials are reused or recycled onsite.
- All materials that cannot be reused are separated and sold to recycling companies rather than transported to a landfill.

GOEX is proactive in:

- Energy conservation
- Protecting our natural resources
- Waste reduction
- Developing products that help customers meet their environmental objectives

We can help you meet your sustainability goals too!

We offer quality recycled content, compostable and bio-based products and emphasize resins that are RoHS compliant. We are working to build a more circular economy by using our plastics resources more efficiently, capturing and repurposing more materials, advancing recycling and recovery, and making a difference in our community.

Talk to the innovative and impassioned team members at GOEX and find how we, as partners, can zero in and help the world to **educate, reuse and recycle.**

Personally from the President

There is a popular tv show these days called "This is Us". The series follows the lives of a family and all the events in their lives that make them who they are.

Here at GOEX, we are like the Pearson family on this show. We are people who want to be reminded of the goodness that is in us.

Plastic gets a bad rap. We can all talk about the efforts we are making to make this a cleaner world, free of pollutants and toxins. But here at GOEX, we live it everyday.

We manufacture plastics that are used in everyday items from gift cards, to grab-n-go food containers, to packaging for life-saving medical devices. We also reduce, reuse, and recycle our resources and are responsible stewards of this Earth.

So, This is Us. It's who we are and what we do. We welcome the conversation as to how we can help you too, make the best use of the resources we all have.



Joshua D. Gray President & CEO GOEX Corporation



A Better Way to Buy Plastic

You've heard the riddle..." Which weighs more, a pound of bricks or a pound of feathers?" The answer? They're both a pound. (But, you get a whole bunch more feathers than bricks in a pound.)

The same thing goes for plastic. Plastic is generally sold by the pound or kilogram; yet **area** is what determines how much can be produced (yielded) from the plastic purchased. So, yield may be a better/more realistic attribute for determining the proper quantity of plastic to buy, and ultimately make your money go further.

With plastic, **weight** is affected by resin density, area and gauge (thickness). Resin density is altered negligibly by process conditions; so yield is mainly controlled through *material selection* and *thickness (gauge)*. To measure yield, a precise area of plastic is cut and then weighed on an analytical balance. The area is then divided by the weight.

Yield is the measure of coverage per unit weight

Yield $(cm^3) = \frac{Total\ specimen\ area}{Weight\ of\ specimen} = \frac{Length\ x\ Width\ x\ Thickness\ (gauge)}{lbs.}$

Polypropylene is a good example of a plastic that has a yield advantage over many other plastics, providing more material for your money.

Material	Gauge (mil)	Width (in)	Density Factor	Weight (lbs)	Yield (ft)
APET	0.025	25	0.048	40,000	111,111
PP	0.025	25	0.0325	40,000	164,103

Proper Material Selection = Yield Advantage

Due to the density properties of APET and Polypropylene (PP), as in the example above, we see the yield difference (in linear feet) between these two commonly used packaging materials. In this example (keeping all dimensions constant), Polypropylene yields over 53,000 linear feet of additional material than APET.

Material	Gauge (mil)	Width (in)	Density Factor	Weight (lbs)	Yield (ft)
PP	0.025	25	0.0325	40,000	164,103
PP	0.0257	25	0.0325	40,000	159,633

Tight Tolerances = Better Yield

The example above demonstrates the importance of proper gauge control and the impact on yield. By simply running the same PP material .0007" thicker, the yield decreases by almost 5,000 linear feet.

GOEX tightly controls gauge by using closed-loop, nuclear gauging support and automatically adjusting dies, ensuring consistently tight tolerances across all production lines. We extrude a wide variety of plastics, putting us in a unique position to offer materials that meet a wide array of applications. In addition, we can blend a variety of resins and additives to customize the stiffness, tear strength and color of the materials we produce for you.

If all this mathematics has hit you like a ton of bricks, no worries. Simply ask about ordering by the linear foot, rather than by the pound, to ensure you receive the amount of material you need and **optimize your yield!**

Create Excitement and Save \$\$ **Using Your Common Senses**

Think "beyond the envelope" with your direct mail and score postage discounts

If you are a business who values direct mail as a marketing tool, you can take advantage of a U.S. Postal Service mailing promotion that awards participants with money off your mailing costs. The USPS Tactile, Sensory, Interactive (TSI) Promotion encourages use of advanced print innovations to drive customer engagement.

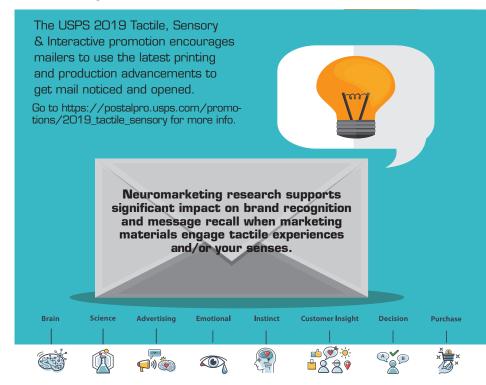
The print industry has been actively innovative not only in print production equipment, but the fundamental elements of the mail itself through new developments in substrates such as plastic, finishing techniques and inks. These elements can be incorporated to engage a multi-sensory experience through special visual effects sound, scent, texture/tactile treatments, and even taste!

Uniqueness can help drive your customer's engagement recognition and message recall can increase.

Here's where printing on plastic comes in...Plastic is an excellent choice for creating durable, unique and sophisticated direct mail pieces that can withstand the toughest environmental conditions.

GOEX has a product offering suitable for just about any graphics application. We pride ourselves on developing innovative products that provide out-of-the-ordinary options. A variety of our substrates like our STYREX® High Impact Polystyrene, CONTOUR® Polypropylene and CAROM® PVC are even offered in recycled options. All are popular choices for printing.

Take advantage of products that can make your next direct mail campaign stand out. Reach out to a GOEX Account Manager for ways plastic can help take your creative to the next level -and even save you some postage!





Announcing the completion of our ISO-certified Class 8 clean room conversion center. This expansion to Secondary Operations helps assure our customers are receiving products that are being processed inside of a controlled environment.

Strengthened capabilities include slitting 4" minimum width, 48" maximum diameter finished rolls that are packaged to customer specifications.

Our customers are manufacturing critical medical devices in clean room environments so we see the importance of providing material that also comes from a clean environment to further assure patent safety. As the leading manufacturer of custom plastic sheet and roll stock, GOEX meets the highest standards and demanding requirements of the food and medical packaging markets. This unique expansion distinguishes GOEX as the only rigid sheet extruder in North America with such capabilities.

GOEX has continually provided quality plastics in an environmentallycontrolled facility. The addition of this ISO-certified, Class 8 cleanroom operation strengthens our ability to provide premier plastic products, be more flexible internally, and run more efficiently overall.

Call GOEX today see how this custom slitting operation can help add value to your products.



You Packin'?



Packaging for third-party food delivery (EatStreet®. DoorDash®, Grubhub®, etc.) is all the rage these days. Top local restaurants are just a tap away, offering customers the ability to order simply through a smartphone app or web site. You can even use your Uber® account to order food you crave from restaurants you love, delivered right to your door.

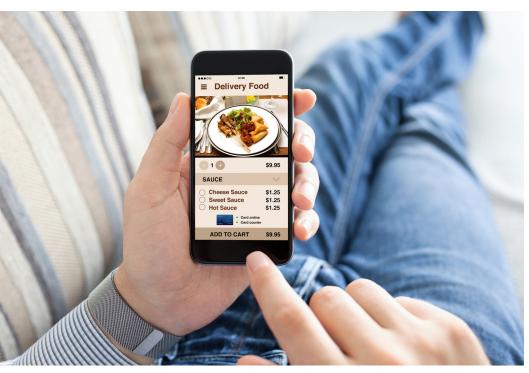
With this explosion in home delivery food services, restaurants are requiring top-notch food container solutions for their delivery and take out foods. Restaurateurs need to be sure their food arrives at the optimum temperature and in a presentable/visually-appealing way. Food containers need to be microwavable and/or freezable and come in a range of convenient sizes.

Current food packaging materials in highest demand are recyclable, renewable and FDA complaint. They must offer unmatched grease and oil resistance, come in a variety of colors and leave a lighter carbon footprint to name just a few of the demands lately. Quite a list of requirements!

Consumers Want	Restaurants Need	GOEX Provides	
Delicious food	Quality control	Food-safe materials	
Speedy delivery	Creations kept hot/cold	Temperature-resistant options	
Reasonable costs	Value-added supplies	Economical choices	
Earth-friendly packaging	Sturdy containers	Sustainable substrates	

Checking off these lists of necessities requires a lot of care to balance the ergonomic with the economic concerns. GOEX comes to the table with a satisfying array of materials that meet the needs of restaurants who make and offer the food, food packaging manufacturers who produce the containers that carry the culinary creations, delivery drivers who get the goods to at-home customers, and ultimately the hungry end-users.

Peruse the menu of products GOEX offers at www.goex.com/industries/food and see the most appetizing offerings of food-safe packaging materials. Your server (ie GOEX Account Manager) can help make a suggestion that will surely whet your whistle, and satisfy your particular application.





June 11-13, 2019 Jacob K. Javits Convention Center New York, NY

See GOEX at Medical Design & Manufacturing (MD&M) East, the largest and longest-running medtech event on the East Coast showcasing the latest medical innovations on the market.

Visit GOEX at Booth 1644

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Production Notes Stock: GOEX CAROM® 45 PVC Press: Heidelberg XL-106 with Full UV

