

Give 'Em the Old Razzle-Dazzle with GOEX PVC Lenticular

LENTICULAR PLASTIC HAS COME A LONG WAY from the Cracker Jack box. The 3-D caramel-and-peanut popcorn-encrusted prizes many of us lusted after as children are among the most familiar examples of basic lenticular printing. But if your notion of modern lenticular printing is limited to baseball cards and secret decoder rings, well, you're living in the past. Today, printers use the lenticular process to create sophisticated effects on applications ranging from labels to posters to packages, point-of-purchase displays, direct mail, magazines, plastic cups – even apparel.

A Passion for PVC

Most printed lenticular plastic in use today is made from PVC, PETG, or APET polymers. Of these, PVC lenticular in rigid or semi-rigid (flexible, supple, soft-to-the-touch) formulations brings some distinct advantages to graphic arts applications by virtue of its toughness and superior performance in adhesive, post-curing and post-press trimming and cutting operations. There is a long history of PVC use for point-of-purchase displays as well as for gift, loyalty and credit cards, for example.

"We definitely are seeing an increase in the demand for lenticular, based on the trend toward specialty printing on



non-standard substrates," says Josh Gray, President of GOEX Corp., which manufactures PETG, Acrylic, Polycarbonate and PVC lenticular, and is currently the only provider of rigid and semi-rigid PVC lenticular in the U.S. "The price-performance ratio of PVC is great, Gray adds. "You can get equal or better performance with PVC (as compared with other materials) but at a lower cost."

GOEX developed the formulation for each of its PVC materials in house. "That's all our work and research," Gray

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What's inside

- President Josh Gray explains the GOEX "value proposition," page 2.
- GOEX raises the bar on innovation for direct marketing specialist IWCO Direct, Chanhassen, Minn., page 3.

We welcome comments and suggestions from our readers.

Contact us directly at (608) 754-3303. We look forward to hearing from you!

GOEX Drives Off Chill With Climate-Controlled Shipping

PRINTERS WHO DEMAND toughness, durability, consistency and flexibility from their presses will accept nothing less from a plastic substrate. Printing and finishing, die cutting, stamping, embossing, shipping

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– it's a gauntlet to sap the strength of the sturdiest contender. When it comes to plastic, therefore, it's performance that separates a true champion from the also-rans, and GOEX print-grade extruded plastic sheet materials are light years ahead of the competition. To ensure that GOEX sheet can take the punishment dished out by even the most demanding litho presses, the company



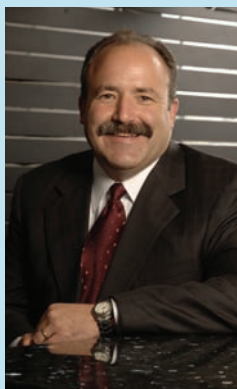
logs an extra mile by giving its high quality sheet materials some extra TLC during the journey from the plant to the print shop.

Ready or Not

From November through April, GOEX ships its products to customers in heated trailers. This is done both as a courtesy and a benefit to printers who work with tight deadlines and need the material right away.

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President's Message



Webster defines *Value* as "the property or aggregate properties of a thing by which it is rendered useful." A core discipline at GOEX is to be *valuable* to our customers. Value comes in many forms and can be realized in many ways. GOEX's value as an extruded plastic sheet supplier comes from the many high-quality products we offer. Value may come from designing new products specific to customer applications; fast order processing and fulfillment; or from our strong technical knowledge base (materials, machinery, process and personnel). Regardless of the value origin, GOEX continually strives to find ways to bring meaningful, recognizable value to the customer.

"GOEX continually strives to find ways to bring meaningful, recognizable value to the customer."

The GOEX Quality Policy states that we offer innovative solutions for our customers' needs." This forms the bedrock of our corporate culture. We work diligently to expand product solutions as they become targeted. Over the past 20 years, we have developed hundreds of products. Some were successful; others were not. Throughout the process, we've identified disciplines within our company that can be enlisted when facing a development challenge. If our people understand the request or need,

we can formulate a plan of action to address it.

To take full advantage of our resources, customers must have trust and be open to share their needs. Both parties must focus on internal operations (material handling, quality concerns, feeds and speeds, packaging, logistics, etc.), right through to their customer's expectation for performance, cost, appearance or volumes. Personally, I find this level of cooperation most rewarding, when together, we discover yet another way to help our customers succeed. It is amazing how often a customer's total system cost is significantly reduced by meeting the challenge to achieve or create something new.

Our commitment to value informs each of the stories in these pages. If you value a partnership with a plastic sheet supplier that can help you differentiate and grow your business, we welcome your call. Enjoy this issue of the GOEX Sheetline.

Sincerely,

Joshua D. Gray,
President

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says. "We've been making rigid PVC lenticular since 1995. In 2004 we expanded to flexible PVC because we had customers who wanted to broaden their penetration in the market, not only into POP and packaging, but also into apparel."

Modern lenticular printing

"The price-performance ratio of PVC is great."

uses graphics specifically designed for viewing through a "lens" that enables the viewer to see different images, depending on the viewing angle. The image itself is a composite of multiple "interlaced" graphic images. The extruded lenticular sheet material is composed on one side of individual "lenticules" perfectly aligned with the interlaced image underneath it. In contrast to the early days of lenticular printing, when an image would be printed on paper, then laminated to the plastic sheet, printers now can print directly

on the smooth backside of the lens to produce a variety of lenticular "effects," including 3D, morph, flip, animation and zoom.

Absolute precision in the formulation of the resins and in the manufacture of the lens itself is crucial to the success of the lenticular process and the visual appeal of the finished product, and it is in these areas that PVC lenticular shines. Some lenses are designed for close viewing; others are best viewed from a distance. Some are for small images, others for larger (poster-sized) pieces. Regardless of LPI (lenticules per inch) or viewing angle, all lenticular is precisely manufactured to rigorous specifications.

Material Matters

With both rigid and semi-rigid PVC, one key to printability is in providing a uniform corona treatment so that the printing structure or dot is predictable, repeatable and consistent, minus dot gain. The surface has to be



extremely smooth and uniform with respect to surface energy or dyne.

"Our extrusion process lends itself very well to producing a smooth, consistent sheet," Gray says. "The printability is fantastic on both rigid and semi-rigid PVC. Ink sticks very well." GOEX reports a corona

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Customer Focus: IWCO Direct

Direct Marketing Specialist Relies on GOEX Innovation

For direct marketers, it's all about response rates: what drives them, and what will produce the greatest return on their investment. Chanhassen, Minn.-based IWCO Direct understands this, and has assembled an integrated portfolio of services uniquely designed to facilitate direct mail package production. Attention-grabbing promotional cards, loyalty cards, key fobs, luggage tags and other plastic promotional products are a staple of IWCO's direct mail repertoire, and GOEX is one of the company's primary suppliers for plastics applications.

According to Chuck Fisher, Manager of Procurement, "What GOEX brings to the IWCO Direct table is a level of innovation we don't get elsewhere: the colors, the metallics, the different types of materials they're putting in front of us that will help us deal with some of the issues our customers are coming to us with – things like recyclability, for example. That's where GOEX polystyrene (Styrex®) and other styrene derivatives are very helpful to us." The company buys GOEX Carom® 45 PVC and Styrex® polystyrene in sheet form, which it runs on UV-equipped Heidelberg presses. In the bargain, it taps the wealth of GOEX technical expertise and creative energy that enables IWCO Direct to transform these raw materials into unique products designed to catch and hold the attention of its customers' target audiences. "They're out in front, bringing us new ideas, new materials, new colors and new things we can do with plastic,"



Fisher says. For example, "They've come up with custom colors and visual effects specifically for us that are important to marketers from a brand identity or brand integrity perspective. As a result, we have been able to enjoy a certain amount of business we might not have secured if it weren't for GOEX."

GOEX Knows the Territory

IWCO Direct has been printing on plastic since the mid- to late 80s, and sees a bright future in plastic promotional printing. "I think we're going to continue to see opportunities in (our plastic business) over the next couple of years, especially as we add some new customers and can bring some things to

the table they're not used to seeing," Fisher says. "One of the things we're looking at is bringing in some other kinds of plastic, including lenticular."

When venturing into new markets, it helps to have a strong, reliable partner that knows the territory. For IWCO Direct, GOEX is that partner. "GOEX always works with us to resolve any production issues we may have," Fisher says. "Not only that, but GOEX is consistently innovative and nimble enough to come up with new and different ideas around the color and the look of the substrate, whether it's metallic, glow-edge or clear with speckles in it. There are a bunch of different things they've done that other people aren't doing. GOEX has made it easier for us to bring new ideas to our clients." ✪

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treatment shelf life of 90 days. "But if it's kept wrapped and stored under reasonably good conditions, without being exposed to extremes of heat or humidity, it will last beyond 90 days," Gray says.

Clarity is also an important consideration in lenticular. "We work to develop the best formulations that take into account clarity, toughness and dimensional stability," says Gray. "Understanding exactly how the material is going to be used helps shorten the learning curve. We recently created a custom effect lenticular for one of our customers by incorporating finely ground metallic particles into the sheet, while retaining 96 percent of its clarity."

GOEX PVC lenticular is extruded from Carom®

60 clear and Carom® 33 semi-rigid clear formulations. Applications for Carom® 60 include tags, signs, packaging, posters, POP displays, mats, covers, displays, cards, postcards as well as high-strength signage and in-store graphics. Carom® 33 applications include tee shirts, hats, backpacks and jeans. The tee shirt pictured on page 2 features a stitchable, washable, dryable lenticular patch, illustrating another fun, flexible application of this versatile material. GOEX rigid and semi-rigid lenticular plastics are manufactured to the company's exacting production and quality standards, and are available in gloss and matte finishes and in custom sheet sizes for specific customer needs. ✪

Shipping, continued from page 1



Climate-controlled shipping is an important component of GOEX's "Pellet to Pallet" philosophy.

According to Sue Schantz, Logistics Coordinator, "All of our materials go heated to the customer." As soon as the materials are extruded, therefore, GOEX wraps them with a inner dust wrap, then power-wraps, labels, bands and loads them into a climate-controlled trailer. "If we are preparing a load for early morning departure, we just keep the trailers running all the time so that the temperature stays constant," Schantz

"Customers appreciate the extra service."

says. "If the material is not being loaded, it's stored in our climate-controlled warehouse. Our aim is to keep the material at room temperature (65°-70°) door-to-door in an effort to provide press-ready sheets to the customer."

"The term 'press-ready' is misguided if the customer has to wait three days to acclimate the material," Gray observes. "If we put material on a truck that's 19° and send it six to eight hours away, the customer is advised to wait for that material to return to 70° before they can print on it. We're providing our customers the option to shorten the entire warehousing/inventory process by enabling them to pull it off the truck, put it next to the press and print it without delay, when necessary."

Because GOEX sells directly to the printer, delivery speed and print readiness are critical. Sometimes the biggest gain can come from the ability to print the material straight off the truck. "What we're trying to do is negate the effects of Wisconsin's seasonal changes. We think providing temperature acclimated material that is truly ready to print has great value to our customer," Gray explains.

On the Move

GOEX keeps its heated trailers on the move 24/7 for runs throughout the Midwest and beyond. When necessary, it also contracts with third-party carriers for deliveries. In either case, it falls to Schantz to make sure trailers are available as they are needed. "It's a significant additional investment to buy and to arrange for heated trailers," Gray says. It is also a necessary one, given the GOEX mission to deliver superior customer service along with its quality products."

"We pay attention to what our customers need," Schantz says. "They appreciate the extra service we provide." 🚚

Styrex® 320 HIPS

Especially made for graphic arts printing and with consistent color and opacity, Styrex® 320 Extruded High-Impact Polystyrene (HIPS) is ideally suited to applications like phone cards, signage, packaging, posters, POP displays tags, promotional cards and much more. Styrex® 320 HIPS from GOEX features precise gauge control, lot-to-lot consistency, full material traceability, great ink receptivity, and is available in a wide range of custom sheet sizes and colors to meet your specific needs. These clean, high-quality products display your printing to its best advantage. Manufactured to the highest standards and subject to rigorous quality controls, these tough, superbly-finished materials feed smoothly at high press speeds, won't jam, and won't compromise registration. Styrex® 320 HIPS is available in gauges from .010 - .125 mil, web widths from 18" - 60" and sheet lengths up to 130", and in gloss/matte or matte/matte finishes. Also available is Styrex® 500, a screen grade polystyrene suitable for screen printing applications.



“Price is what you pay. Value is what you get.”

- Warren Buffet