

## New STYREX® 490, 690 and 720 PS Alloys Offer Benefits of Polystyrene with Performance of PVC

TWO YEARS AGO, GOEX CORP. LAUNCHED ITS HIGHLY SUCCESSFUL SIGNEX® PRODUCT, which it targeted as a cost-effective alternative to Polycarbonate signage. Now, GOEX continues its mission to bring greater value to its customers by developing a line of Polystyrene (PS) alloy materials designed to function as cost-effective, performance-driven materials.

The new STYREX® Polystyrene alloys are available in different grades for different uses, including STYREX® 490 Clear and 690 White Polystyrene, general-purpose sheet designed for graphic arts and thermoform applications where PVC is not preferred. STYREX® 490 and 690 lend themselves readily to surface-printed plastic sheet applications because they are easy to print and cut,

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### New Product Development System Channels GOEX's Creative Energy in Productive Ways

THE CONCEPT OF RIGHT- AND LEFT-BRAIN THINKING is based on the discovery that the human brain processes information in two very different ways. The visual right brain handles information in an intuitive and simultaneous way, looking first at the whole picture then the details. The left brain is verbal and processes information in an analytical and sequential way, looking first at the pieces then putting them together to get the whole. With a long history of innovation and a reputation for ingenuity, GOEX relies on a structured approach to new project selection that blends the best features of both intellectual modes to scrub time and labor from the product development process and bring customers more value, lower costs, improved quality and greater efficiency.

The individual charged with implementing the new product development system at GOEX is Director of Quality Systems Pete Goral, whose background in Quality, Product Development, and Scheduling work



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Pete Goral

# President's Message:

## On the Road to Total Customer Satisfaction



Every great idea requires discipline in its execution.

Creativity and discipline are two sides of the coin called innovation. Various situations give rise to business innovation, among them, the need to provide better or more cost effective products and services, or to meet a need that did not exist before. Economics and customer preference exert their own special pressures. It all keeps a supplier on its toes.

Every great idea requires discipline in its execution. In this issue of the GOEX Sheetline, we reveal both the inner workings of our new product development program, as well as some of the results: a new line of Polystyrene (PS) alloy materials designed with properties similar to those of PVC, albeit more cost-effective and with excellent product performance. Beyond this, however, our new STYREX® Polystyrene Alloys offer customers significant cost advantages as well as physical properties that make them an equivalent performance option to PVC.

Obviously, innovations like STYREX® 490, 690 and 720 don't just happen. Rather, they are the products of a rigorous product development process that begins with a well-defined, well-understood product concept and follows a

sequence of prescribed steps to market launch. Profiled in these pages is Director of Quality Systems Pete Goral, the individual responsible for refining the GOEX product development system, which counts among its various successes not only the new line of PS alloys, but also GOEX's recycled High-Impact Polystyrene product.

Finally, we profile IWCO Direct, a loyal GOEX customer that has benefited from both product innovations described above. Our positive experience with great customers like IWCO Direct and others convinces us that we're on the right track. Innovative products are developed and supported by rigorous continual improvement initiatives, all of which help us keep our eye on the prize of total customer satisfaction.

Enjoy this edition of the GOEX Sheetline!

Sincerely,

Joshua D. Gray,  
President

### New STYREX®, continued from page 1

and because they offer more than a 20 percent yield advantage, based on their lower density compared with PVC. For the most demanding PVC alternative applications, like plastic cards, GOEX also now offers a super-duty PS alloy, STYREX® 720, which also provides a comparable yield advantage.

There continues to be a significant amount of negative buzz about the environmental and health implications of PVC plastic. "Although we believe that much of the negativity about PVC is exaggerated, the bottom line is that customer perception is what we accept as market reality," says Bob Waddell, Vice President of Sales and Marketing for GOEX. "We're not in business to determine the merits of PVC or any other resin, for that matter. Our goal is simply to offer

our customers that want a PVC alternative another aisle to shop."

Each of these new STYREX® materials is fully recyclable in keeping with GOEX's "Zero Landfill" initiative.

Alloying plastics is an effective, economical way to combine and modify the physical properties of simpler materials into higher-performance extruded sheet products. The development of Polystyrene alloys like STYREX® 490, 690 and 720 is important, Waddell explains, because High-Impact Polystyrenes (HIPS) are generally

less expensive than PVC because the material is less dense.

"You get more yield (sheets per pound) with Polystyrene Alloys than with PVC," he says. "However, HIPS does not always effectively compare with PVC in terms of physical

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## Customer Focus: IWCO Direct

### Direct Mailer Adds STYREX® 690 to Its Materials Repertoire

Longtime GOEX customer IWCO Direct in Chanhassen, MN boasts a commitment to customer service to rival GOEX's own. The company, which recently became a purchaser of the manufacturer's new STYREX® 690 product, is in the midst of a long-term, companywide "migration" from PVC to STYREX® 690 that will enable it to offer customers the advantages of the new material in terms of easier handling and lower cost.

STYREX® 690 lends itself readily to surface-printed plastic sheet applications because it offers yield advantages over PVC based on its lower density, and prints and cuts easily.

"Especially as postal rates continue to rise, it is incumbent on direct mailers like IWCO Direct to offer customers the best combination of materials and price for the money," says Chuck Fisher, Manager of Procurement for the company. "With its added toughness and cuttability," he says, "STYREX® 690 fills the bill in that regard."

IWCO Direct uses the STYREX® 690 Polystyrene alloy to replace PVC in applications "where it makes sense," Fisher says, for example, in marketing, reward

and loyalty cards, and in other popular promotional products.

As it does with all of its manufacturing waste, IWCO Direct takes further advantage of GOEX's closed-loop, "Zero-Landfill" recycling program, which reprocesses its STYREX® scrap into printable plastic sheet that IWCO Direct can reuse again and again. GOEX worked with IWCO to streamline the existing recycling program, requiring IWCO Direct to establish good control over its scrap collection, retention and labeling procedures. Participation in the program has enabled IWCO Direct to market its plastic materials as environmentally sustainable to its clients.

"GOEX is always ready to work with us on new ideas and new derivatives that will help us serve our clients better. STYREX® 690 is just the latest example in a series of innovations that have enabled us to add value to our customers' marketing programs. We know we can count on GOEX to bring a level of creativity, technical know-how and a can-do attitude to the table. That makes them a very valuable partner." ♣



#### New STYREX®, continued from page 2

properties. Our new STYREX® alloys favorably change the performance comparison, while also bringing the PS yield benefit into the equation. These STYREX® Alloy products provide the advantages of improved toughness and cuttability over standard HIPS."

Direct marketer IWCO Direct in Chanhassen, MN is one GOEX customer that has sought a way to address customer interest in PVC alternative materials used in direct mail promotions by offering cards made with STYREX® 690. For more from IWCO Direct, see box, above.

#### Fully Recyclable

GOEX currently manufactures Polystyrene alloys in three different grades: STYREX® 490, a clear material (that can also be made in custom colors) for thermoforming and graphic arts applications; STYREX®

690, a standard white substrate for thermoforming and surface-printed graphic arts applications; and STYREX® 720; a high-performance hybrid for tougher forming and printed product applications. "Our STYREX® 720 is a particularly good PVC alternative for high durability cards or cards that require embossing," says Waddell.

And if all these advantages were not enough, each of these new STYREX® materials is also fully recyclable in keeping with GOEX's "Zero-Landfill" initiative, which provides an opportunity for customers to recover and extract value from their processed plastic scrap. GOEX inspects and conditions the scrap into usable form, then extrudes it back into sheets that can be fully processed into printable sheets products. STYREX® materials containing a core of recycled



reground are appropriate for customers that are able to accept some color variation in the product core layer. "The customer gets the benefit of putting recycled content into the sheet and also promote the environmental marketability based on that," Waddell says. ♣



ideally qualified him for the task. Since coming on board at the company in September of last year, Goral has helped implement a process that begins with a well-defined, well-understood product concept and follows a sequence of prescribed steps to market launch. GOEX defines these requirements as a series of “quality gates” through which every new product must pass on its journey to product launch. The quality gates evaluate the product all the way from its original business plan and specifications to final phase-out, checking compliance with pre-determined standards at each stage of the process, as follows:

- Plan and Define Phase
- Product Design
- Process Design Development and Approval
- Customer Approval
- Post Sample/Pre-Production
- Post Launch Analysis

Before a product can be released commercially, full compliance with all benchmarks must be confirmed. “GOEX has a history of working closely with customers to help find solutions to their needs,” says Goral. “At GOEX, this highly structured process is based on the clear assignment of responsibilities, a common understanding of where a project stands during the development phase, and the maintenance of a central (digital) repository for all project data,” including notes and due dates, quality planning, test results and sample evaluation information, and approvals.

The rigor of a staged approach to new product development, says Goral, is intended to better define intended product features and functions prior to launch, and to launch a product one time only. From the customer’s point of view, it also ensures accountability to requirements including product specifications, quality expectations and deadlines, and provides a clear definition of deliverables, along with evidence to support their achievement.

“A habit of continuous improvement is at the heart of the GOEX business model,” states Bob Waddell, Vice President, Sales and Marketing.



“As our company continues to grow, we owe it to our customers to explore and implement measures that will hold costs down and create even greater value for them. Fine-tuning our new product development process is key to this ongoing effort.”

From concept to launch, the new

**“Before a product can be released commercially, full compliance with all benchmarks must be confirmed.”**

product development timeline varies greatly, but the end result is the same: the expeditious development of a clearly defined product. Among the first products to undergo the six-step “staging” process successfully are GOEX recycled HIPS and STYREX® 690, both of which are successfully marketed by the company.

In describing how the GOEX system works, Goral is careful to distinguish between process control, which helps ensure consistent, repeatable results, and corrective action, which refers to

the steps required to define and correct problems. Both, however, require an understanding of the relationship between a project’s design parameters and a company’s process capabilities.

“Being able to consider running alternative product is unique in itself,” says GOEX President Josh Gray. “The capital costs are significant but ultimately worthwhile when you can use them to develop a product and solve a problem.”

The GOEX “Stage Gate” disciplined approach to product development is one more example of the kinds of continuous improvement initiatives the company employs to keep quality high and control the costs without sacrificing the creativity and innovation that are the hallmarks of its business. In the end, it is GOEX customers who benefit, and the company aims to keep it that way. 🌟

“ Genius is 1% inspiration and 99% perspiration. ”

- Thomas Alva Edison