

# Artistry of Plastics

CASE STUDY: *fashionable plastic decoration in a seamless adhesion design*



**Fabric Fusion™ in-mold decorating opens a new realm of design options for beautiful, lasting plastic containers.**

Artistry of Plastics, an offshoot of parent company Plastic Parts Inc., and K. Quinn Designs, a Dallas-based entrepreneurship, found like-minded goals in a quest to develop fashion-oriented design techniques for custom plastic injection molded containers. Company founders, Jill Osiecki and Kathleen Quinn, respectively, discovered the need for a plastics decorating method that breaks the mold of the traditional industrial designs which were skewed toward masculine appeal.

## **OPPORTUNITY**

Kathleen Quinn, president of K. Quinn Designs, was looking for a way to make plastic storage cases functional and fashionable. Her design concept – a beautiful container that houses cleansing wipes – needed to appeal to a market that would appreciate a high-design, reusable case. The effort to make the concept a reality presented a challenging opportunity – there was nothing like it on the market place. After writing a provisional patent for a plastic case that would have a substantial feel, be easy to clutch, and have a durable decoration with feminine appeal, Quinn sought to find someone who could make it come alive.

“I was looking for a company with a strong background in the plastic industry who would be a great team player and forward-thinker,” said Quinn. Her search for a qualified, U.S.-based manufacturer that could be a long term partner led her to Plastic Parts, Inc. located in Union Grove, Wis. The timing couldn’t have been better. Osiecki, with a strong background in chemistry and biology, had recently joined her siblings at family-operated Plastic Parts, Inc. and was focusing on expanding the company through new ventures.



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**Kathleen Quinn, founder  
K. Quinn Designs**

Osiecki, ready for the challenge, read technical literature, attended industry trade shows, and consulted with individuals in the plastic film industry to explore options. She found plenty of knowledge about in-mold labeling but no one knew how to incorporate the use of textiles to achieve the goal she was looking for.

What Osiecki saw lacking in an industry dominated by broad decorated mold styles was stylish, classic, fashion-oriented plastic decoration in a seamless adhesion design. She considered plastic mold textures as options but they offered limiting design styles and were very costly. Mold texture also lacked the realistic characteristics of the high-end, classy feel that she was designing for.

### **SOLUTION**

When outside resources failed to provide viable options, she collaborated with the Plastic Parts, Inc. team to come up with a solution. Drawing on an inventive background that runs generations deep, and the capabilities of the Plastic Parts team, Osiecki began a design experimentation process. The resources of the long-standing business allowed her to rely on in-house expertise for research and development that she describes as methodic and grueling.

With the help of the tooling department, led by Osiecki's brother, Jeff Jorgensen, a plastic mold was created that improved molding characteristics, allowing it to reliably and repeatedly accept a fabric insert. The discovery was the genesis for the development of Fabric Fusion™. Osiecki's husband, Chris, and sister, Sheri Jorgensen, aided in selecting a resin that would work for the entire design line. They reviewed six different resins, and tested numerous colors and metallics, ultimately selecting a resin in classic black for its versatility.

The group spent the majority of development time maximizing the label efficiency and minimizing waste to create the best process value. According to Osiecki, the correct use of plastic and label adhesion was critical. The team considered existing decorating technologies but they didn't offer the texture, high style, or exacting specifications Quinn desired in her quest for feminine characteristics.



“Our real dilemma is to take the universe of possibilities and focus on what’s next.”

**Jill Osiecki, Founder & VP**  
**Artistry of Plastics**

Osiecki’s knowledge of textiles and the team’s experience with automation, insert molding, and in-mold decoration methods, was pivotal in taking them through the next phase of development. Their patience in finding the correct formula to accommodate varying fabric properties eventually paid off. The team found an exacting recipe that accepts a range of fabric fiber content, design categories, and strength characteristics with a backing that stabilizes the textile to prevent shrinking, fraying, fading, and other characteristics unique to each fabric type.

The resulting fabric label – fabric fused with a proprietary backing – was developed to load into a robotic end-of-arm assembly. According to Osiecki, the extreme accuracy of the adhesion process was achieved through numerous adaptations and relentless testing. The automated method was the final step in achieving the unique molded-in technique that merges resins with textiles to create a seamless product design.

#### **ADVANTAGE**

The development of Fabric Fusion™ spawned the Artistry of Plastics business and a plastics decorating method with limitless design options for a wide variety of industries. For K. Quinn Designs, success has been immediate. Quinn’s products can be found in over 70 Buy Buy Baby stores nationwide with steady reorders coming in. Quinn and Osiecki already have ideas to expand the product line with slimmer, sleeker cases that will include beautiful Fabric Fusion™ decoration.

The proprietary Fabric Fusion™ method combines the style and texture of fabrics in a way that traditional printed labels cannot match and offers the versatility of using a multitude of fabric types with the option of enhanced decoration techniques. Customization is achieved through pre- and post-decoration including heat transfer printing, embroidery stitching, laser embossing and debossing, even use of embellishments such as rhinestones. Artistry of Plastics has molded the full color spectrum into high-quality, reusable plastic storage cases including specialty colors like metallic, pearlescent, and metal flake.

Osiecki’s latest advancement? She has refined the Fabric Fusion™ method to specified requirements for niche products such as premium items and logo’d decorations. “The sky’s the limit,” says Osiecki. “We can go in many different directions and are considering other form factors for the Fabric Fusion design mold that include apparel and accessory options.” Osiecki says the company may even design its own fabrics to expand on the unique options that put artistry in Artistry of Plastics. “Our real dilemma is to take the universe of possibilities and focus on what’s next,” she said.