

UPACO – a division of Worthen Industries – has a rich, 150-year history as a leading manufacturer of industrial adhesives and coatings. Its customers rely upon UPACO to ensure that their adhesives are the most up-to-date, efficient and cost-effective in the marketplace.

In the late 1990s, UPACO chemists noticed customers were increasingly frustrated by the existing process of sole attachment within the footwear industry. For decades, the industry applied what was essentially a wet cement product that adhered athletic shoe elements together. “The traditional stock-fitting process is highly complex and often requires multiple steps that require high energy use and the release of Volatile Organic Compounds (VOCs) into the environment” stated John Slattery of the UPACO Footwear Business Unit. “We wanted to help our customers get away from storing and using hazardous materials when possible.”

Although customers wanted to evolve from the traditional stock-fitting process, no safe and effective alternatives existed.

UPACO first began by imagining how to simply streamline the fitting process. “We imagined creating a film that would become a part of the sole. Originally this was for polyurethane poured or injected soles that allowed us to consider the end product as one unit, rather than a variety of pieces that needed to be washed, primed, trimmed, heated, and so on” states Slattery. After multiple iterations EcoBond[®] Film 2609 for co-molding rubber to EVA midsoles was created, tested, and patented,

EcoBond[®] is emission-free, safe to store, non-flammable, does not produce any hazardous waste or empty container disposal, can be re-ground and is user-friendly.

The product has:

- Adhesion properties equal to or more effective than normally seen in traditional stock-fitting processes
- Consistent/uniform profile
- Infinite shelf-life
- Availability in wide rolls and narrow widths to allow excellent sizing with minimal waste

One major challenge remained: the product itself was more expensive than UPACO’s traditional solutions. UPACO knew the product was better for customers and for the environment, but was challenged to make buyers aware of the significant savings that the enterprise would receive by paying a bit more at the beginning. In fact, customers

using the new process experienced more than 1/3 reduction in their overall production costs.

“It was our responsibility to show that the cost-savings would be significant when you consider the process of manufacturing – labor, waste, energy and material” stated Slattery. “We had to help our customers think differently about the entire cost of production. It required a lot of modeling and energy audits on our part to gather the data.”

Developed initially for in-mold application to polyurethane soles, EcoBond® has expanded to become applicable to virtually all footwear materials and constructions.

Customers are not only able to demonstrate innovation and quality assurance, the adoption of the EcoBond® product also provided excellent environmental sustainability and employee safety assurances.

“This new process requires fewer workers, allows those workers to operate in a safer environment, and creates less scrap materials,” states one of UPACO’s largest footwear customers.

Most important? The product works. EcoBond® has been used in military footwear for almost two decades. Today footwear brands are building the specs into their manufacturing requirements. “It’s becoming unimaginable to think about production in any other way now.”

Best Practices - - - - -

- Monitoring industry trends
- Thinking differently
- Environmentally preferable

Contact - - - - -

Footwear Products –

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