



PLASTICS MAKE IT POSSIBLE™ SHOWCASES EXCEPTIONAL INNOVATIONS IN PLASTIC. THIS MONTH WE LOOK AT HOW PLASTIC IS USED IN FASHION.

SPOTLIGHT ON

High Performance Plastic Fibers Help Top Athletes and Weekend Warriors Reach Peak Performance

It took the Australian Institute of Sport, a cadre of Olympians, NASA's wind tunnel testing facilities and high tech software to design "the world's fastest swimsuit." Speedo's LZR Racer® suit (pronounced "lazer") debuted at the 2008 Olympics to the maker's claims that the innovative fabric composed of woven elastane-nylon and polyurethane could lower racing times by 1.9 to 2.2 percent.

The advanced suits hold together the swimmers' muscles so tightly that the body becomes more streamlined as it moves underwater. Although some have questioned what these advancements mean for the state of competition, no one questions the benefits of plastic-based fabrics in performance wear.

From Under Armour® and performance footwear to helmets and outdoor gear, today's bikers, runners, climbers and skiers rely on plastic-based athletic wear to work as hard as they do.

(See PERFORMANCE, Page 2)

Michael Phelps in Speedo's LZR Racer® suit



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Contest Inspires Emerging Designers to Create Haute Couture with Plastics

Everyday nylons, chic Lucite® accessories, stretchy jeans and the ever popular "jelly" sandal would not be possible without innovations in plastic materials. No matter the fashion trend, plastics are there to provide stretch, durability, texture and structure to the couture garments that walk the runway and the casual staples we turn to every day.

To celebrate the legacy of plastic in fashion and to encourage ongoing innovations in the field, the American Chemistry Council introduced the *Plastics Make it Possible*SM design competition. The competition launched in partnership with Gen Art, the leading fashion network for emerging talent, and gave new and established designers the chance to compete for \$10,000 and an opportunity to show a ten-piece, plastic-based line at Gen Art's 2010 New York Winter Fashion Week event – The New Garde!

To enter the competition, designers nationwide were tasked with creating two dynamic womenswear looks made from fabrics that include plastic-based fibers such as polyester, rayon and nylon. Designers then submitted their work to an online community where friends and fashion lovers alike could view, vote and comment on the looks that most inspired them.

Though the contest was open for less than 50 days, a total of 161 entries and 322 looks were submitted, and more than 5,000 comments and reviews were posted. The Gen Art Fashion Department and *Plastics Make it Possible*SM reviewed each design, and in January of 2010, selected a winner.

(See COUTURE, Page 2)

And the winner is... WesFeld! This gorgeous winning dress was inspired by crustaceans. To learn more about WesFeld and the materials they used, see Page 2.



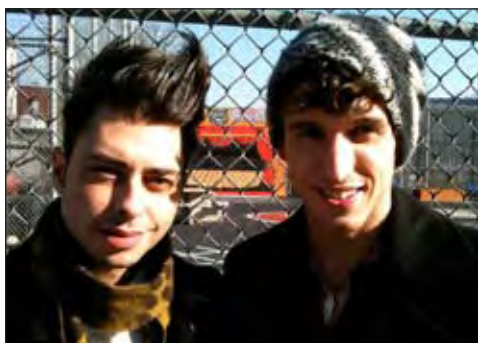
Bakelite Bangles Go To Auction



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Bakelite jewelry was one of the only affordable accessories for women during the Great Depression, but some pieces fetched as much as \$3,000 at a recent auction in December 2009. Bakelite began as dime-store jewelry, most popular from the 1920s to the 1940s, but it has become extremely attractive to modern collectors. Bakelite jewelry can be brightly colored and when carved, can offer an animal-friendly alternative to ivory, coral and tortoiseshell. Modern plastic-inspired trends, such as big jewelry, Lucite® and patent leather (leather treated with a plastic finish) accessories are expected to make a big appearance in 2010 so Bakelite lovers can expect to see more fashion innovation in the coming runway seasons.

COUTURE, from page 1



The winning design duo, WesFeld, is comprised of Daniel Feld (left) and Wesley Nault (right).

The design team WesFeld wowed the judges with an elegant plastic-based look that captured the essence of a sea shell, while maintaining the detailed construction required by haute couture. The WesFeld team is comprised of Wesley Nault and Daniel Feld, season 5 veterans of the television reality show *Project Runway*. The pair describes their style as “ready-to-wear, avant-garde, real clothes for real women.”

WesFeld’s winning look, titled “Oceanic Structures,” features wave-like dresses constructed with materials such as poly-organza and poly-taffeta in addition to the plastic woven interfacing and plastic boning that provide structure to the dress panels. Even the luxurious piping is achieved with poly-satin materials.

According to Feld and Nault, “Plastics are an ideal material to work with because they give designers creative flexibility without compromising function. When you work with plastic, clothing can be whimsical and avant-garde without being unwearable.”

WesFeld’s combination of innovation and endless potential makes them the *Plastics Make it Possible*SM design contest winner. Visit plasticsmakeitpossible.com to see more of WesFeld’s winning look and to see photos and posts from the designers as they prepare their plastic-based line for New York Fashion Week.

PERFORMANCE, from page 1

Sun Protection

Many athletes and outdoor enthusiasts struggle to protect their skin from the sun while battling perspiration. Recycled polyester and other plastic materials can be woven to produce both “fleecy” and sleek materials that can offer significant UPF sun protection. At the same time, these materials can wick away perspiration and moisture.

Wicking

Moisture control is key to regulating body heat. In cold weather sports, materials that trap sweat on the skin or hold perspiration near the body can put outdoor enthusiasts at risk for hypothermia. In warm weather, clothing must breathe to allow for natural evaporation. Nylon, polyester and Lycra are well known for their moisture wicking abilities. The materials alone or in combination can be woven into soft, pliable fabrics that transfer moisture away from the body by drawing perspiration from the skin to the garment’s surface where it evaporates, helping to keep the athlete from heating up or cooling down too quickly.

Wind Protection

No matter how fast an athlete is moving, wind chill can severely impact body temperature. Plastic materials can be incorporated in almost any garment through lamination. Plastic materials can even be used to seal the seams of a garment against the wind.

Odor Control

Athletes often find it difficult to keep sweat-drenched uniforms, jerseys and other gear smelling fresh. Manufacturers have discovered that some plastic materials can be used in fabrics to help fight odor. In addition, oil repelling substances can be added to the plastic components of fabrics to help prevent fibers from absorbing perspiration.

Water Resistance

Plastic-based membranes can be used in fabrics to achieve excellent water-proofing. One notable example is the material Gore Tex[®]. The plastic membranes used in these materials can contain 9 billion pores per square inch. Each pore is smaller than a droplet of water but larger than a molecule of water vapor. As a result, fabrics treated with these plastic membranes keep out liquid water but allow moisture vapor from sweat to escape easily.

WE NEED YOUR INNOVATIONS!

The *Plastics Make it Possible*SM Newsletter is published by the American Chemistry Council to promote innovations in the use of plastics.

Please send stories about your innovations to innovations@americanchemistry.com.

We will be pleased to consider them for publication.

Thank you.

