

# Dyes & Chemicals

## Huntsman Genencor introduced a revolutionary bleaching solution for the textile industry: Gentle Power Bleach™

Huntsman Textile Effects and Genencor, a division of Danisco A/S, introduce Gentle Power Bleach™, a revolutionary solution for bleaching textiles in a more environmentally friendly way. Gentle Power Bleach™ is a groundbreaking new bleaching technology from Huntsman based on first to market enzyme innovation from Genencor.

This outstanding new peroxide bleach system allows for low temperature bleaching of textiles at 65°C and at a neutral pH range. By lowering the treatment and rinsing temperature considerably, savings in water and energy consumption of up to 40% are possible. What makes the system unique is that it represents an important contribution towards more sustainable textile fiber processing, while delivering textile goods with enhanced quality.

On regenerated cellulosic fibers in particular textile processors can obtain excellent full white levels. Fabrics pre-treated with Gentle Power Bleach™ demonstrate an extremely soft, bulky, natural handle, seen especially on cot-



Collaboration results in a unique, enzymatic bleaching solution which will improve sustainability for the textiles industry.

tons. Using Gentle Power Bleach™ results in less fabric weight loss whilst delivering brighter and more brilliant color shades with a higher color yield.

All of this results in processing fabrics with much less impact on the environment, better dyeing results, and a permanent soft and bulky handle.

"We are very excited to bring this solution to market today," outlines Stephen Gray, Vice President of Research and Technology at Huntsman Textile Effects.

"As the industry is evaluating how to improve on sustainability, we can now provide alternatives to existing technologies that were non-existent up until today. We see this as an important step forward, both for the industry and the environment."

"We believe industrial biotechnology can deliver biobased solutions to address challenges facing the industrial world today," says Glenn Nedwin, Executive Vice President of the Technical Enzymes business unit at Genencor.

"The collaboration with Huntsman Textile Effects on the Gentle Power Bleach™ system proves that we can create major improvements for the textile processing world. We are committed to continue to develop innovative enzyme solutions that will help increase performance and decrease the environmental footprint of this industry."

### Huntsman and Genencor – A collaboration committed to a sustainable future

Genencor and Huntsman have a long-standing history in the textile industry. Genencor focuses on discovering, developing, and delivering highly innovative, efficient enzyme technologies for more sustainable textile processing.

Huntsman Textile Effects is constantly developing new platforms that will improve fabric performance and reduce energy and water consumption in the textile industry.

This joint effort culminating in the launch of Gentle Power Bleach™ exemplifies both companies' commitment to innovation geared towards improvements in both process sustainability and product performance.

## Huntsman Textile Effects presents innovative technology at AATCC 2009 IC sustainable processes and green chemistries for textile processing

The AATCC held their International Conference in Myrtle Beach featuring three educational tracks which mirror the Association's interest groups: Concept 2 Consumer (C2C), Chemical Applications, and Materials. As a long-standing member of the AATCC, Huntsman Textile Effects associates were amongst the 300 registrants and also played an active role with a presentation by Mike Cheek, our Technical Resource Director for Americas, who offered the 60 attendees of the chemical applications track "A Glimpse into Sustainable Processes and Green Chemistries for Textile Processing."



Underlining our commitment to Living Sustainability, Huntsman invests considerable efforts to find more sustainable methods for textile processing to both reduce the carbon footprint of these processes and lessen the overall environmental impact of textile manufacturing. At the same time, we are also concentrating our know-how in developing biotech chemical processing aids derived from renewable resources in order to lower the dependence on petroleum as a starting raw material.

Mike Cheek's paper explored an example of a "Sustainable Bleaching Process", and took a look at recent developments in biodiesel-based surfactants, not derived from mineral oil, that are being explored for use in textiles.

### BASF presents eco-efficient textile solutions at Interstoff Asia Essential 2009

BASF Textile Chemicals will demonstrate how eco-friendly textile solutions can also contribute economically at the 'Interstoff Asia Essential' trade show. The show, a highly respected sourcing platform for textile professionals focusing on eco-textiles and functional fabrics, will take place from March 18 – 20 in Hong Kong.

At this show, BASF Textile Chemicals aims to showcase how ecology and economy can go hand in hand through innovative solutions focusing on three key aspects: consumer safety, resource saving and climate protection. These solutions are part of BASF Textile Chemicals' commitment to the textile industry, "Putting \*FUTURE into Textiles," which aims at contributing to better textiles and a better future.

#### Products and solutions presented at the show include

- ❖ One of the world's first textile articles with a demonstrated carbon footprint.
- ❖ Eco-efficient solutions that contribute to saving resources like water and energy, as well as time and cost.
- ❖ A formaldehyde-free textile processing system meeting the highest formaldehyde requirements.

#### Eco-efficient solutions adds value from both economical and ecological perspectives

BASF will take part in the panel discussion organized by Interstoff Asia Essential and Eco Textile News. Paul Mui, Head of Business Management Textile Chemicals East Asia, will be on the panel discussing "Can sustainability survive the global credit crunch?" BASF's eco-efficient solutions are not only environmentally friendly such as contributing to saving resources. Solutions such as Helizarin® ECOSOFT Printing System for textile printing and wrinkle-free finishing applied in for example non-iron shirts were analyzed using BASF's Eco-efficiency Analysis, which looks at the overall environmental impact of a product along with its total cost of alternative products and processes. The results show that they are the best alternative also from an economical point of view – saving time and cost.

One of the world's first textile articles with a carbon footprint in a joint project with leading partners along the textile value chain, BASF calculated the carbon footprints of specific articles from empirical data collected during the actual production process. Furthermore, the partners were able to reduce overall carbon dioxide emissions by using BASF textile auxiliaries and technologies.

Two ecological solutions were compared against the conventional systems used in textile mills: BASF's aftersoaping agent Cyclanon® XC-W for dyeing, and BASF Color Fast Finish system that is an intelligent coloration system. The former can reduce the processing time and water consumption compared to the conventional system.

BASF Color Fast Finish, an intelligent coloration system, is a one-step-process of textile dyeing and finishing, combining the dyeing, washing and finishing steps into one step, which can reduce the processing time and the carbon dioxide emissions.

One step ahead in product stewardship "Consumer safety along with environmental protection are our top priorities when coming to developing new products," states Janardhanan Ramanujalu, Director and Head of Global Business Management Textile Chemicals at BASF.

One outstanding example is BASF's formaldehyde-free textile processing system that ensures "zero add-on" of formaldehyde during production.

This is especially important for manufacturers of baby and children's wear, where controls for formaldehyde levels have become more stringent. "Not only can customers meet today's standards, they can be rest assured also in the future," explained Janardhanan.

Visitors will also learn how BASF Textile Chemicals is taking further steps in improving consumer safety, for example, in the field of product stewardship and meeting ecological standards. Janardhanan continues: "This is to live up to our goal - 'FUTURE means textiles are safe – anytime, anywhere' - which we want to jointly achieve with our customers and partners in the textile industry." ♦

### Coldblack® textile finish from Schoeller conquers the motorcycling world

With the new coldblack® textile finish from Schoeller all kinds of outdoor activities are much more fun. The first garments with double sun protection are available this year. coldblack® actively reduces the absorption of the sun rays and offers a reliable protection from damaging UV rays. As the leading manufacturer of motor cycle garments, BMW Motorrad is introducing coldblack® technology for pants and jackets in its new Streetguard 3 suit. Streetguard 3 is the premiere product of BMW Motorrad's textile garment range and combines the most modern materials currently available.

The extraordinary outer fabric was developed in an exclusive cooperation between BMW Motorrad and Schoeller Textil AG. The outer material used for the robust three-layer laminate consists of Kevlar® fibers, cotton and high-tensile polyamide and offers even more abrasion protection than the preceding model. The coldblack® finishing technology ensures that dark fabrics heat up very little when exposed to long periods of sunshine, because – as is the case with lighter-colored textiles – the sunlight is reflected, providing active protection from heat and UV rays.

Therefore, motorcycle wear with this technology remains tangibly cooler for longer, even in blazing sunshine; guaranteeing that the rider stays more comfortable. In Streetguard 3, the smart, highly breathable water and windproof c\_change™ climate membrane is also featured. Thanks to the most modern textile technology and technical innovations, the new Streetguard 3 from BMW Motorrad is the perfect companion for motorcycling in all kinds of weather.

Strategic cooperation: Schoeller Technologies AG and Clariant International Ltd have jointly developed the coldblack® technology and filed patent applications (pending) covering the coldblack® technology. Schoeller Technologies AG is responsible for marketing and branding activities. **Clariant International Ltd** is handling all matters of sales, production and distribution worldwide, and the transfer of technical know-how and quality control towards customers, predominantly textile mills.



Exclusive in technic and comfort: The Streetguard 3-suit from BMW Motorrad with coldblack®.