



# GORE FABRICS RESPONSIBILITY UPDATE



# 2016

Content

Gore invests more than 15 million USD into R&D for innovative material solutions	p 3
New dying technology in GORE-TEX® Berghaus jackets	p 4
Gore explores use of recycled textile	p 4
New LCA study: DWR performance impacts the environmental profile	p 5
Updates: Higg Index and Product Environmental Footprint	p 6
Gore Fabrics increases its bluesign® offering	p 6
Environmental programs at Gore Fabrics manufacturing sites	p 7
Social initiatives 2015	p 8
Brand ambassadors Pep Guardiola and Stefan Glowacz discuss about leadership	p 10

## EDITORIAL

The last year marked yet another milestone in Gore Fabrics’ continuous journey to further reduce the environmental impact of its products: In August 2015, Gore Fabrics announced the plan to invest \$15 million (USD) over the next five years into innovative material solutions for today’s durable water repellent treatments (DWR). Our goal is to deliver new solutions with an improved environmental profile while still providing durable comfort at or above the performance level of today’s best DWR.

In addition, Gore Fabrics published a new Life Cycle Assessment study. Key question of the study: How do different DWR treatments impact the performance and life cycle of a functional outdoor jacket? The choice of a PFC based or a “PFC free” DWR application to a product needs to be evaluated carefully. The performance differences are significant; however, the environmental impact of both technologies is similar.

Based on the LCA findings, we also started initiatives to further reduce the environmental impact of production and distribution of products. We have explored new dying technologies as well as using recycled textiles for our laminates. In addition, we continued to increase our offering of bluesign® approved Gore laminates and support the work of SAC in the development and roll out of the Higg Index.

We are proud to share some social projects that Gore associates initiated throughout different regions in the world, such as the refugee support program or the product donation for teachers in India.



Bernhard Kiehl

# GORE INVESTS MORE THAN 15 MILLION USD INTO R&D FOR INNOVATIVE MATERIAL SOLUTIONS

Gore plans to invest more than \$15 million over the next five years, to explore innovative solutions for today’s durable water repellent (DWR) treatments. The goal is to deliver new solutions with an improved environmental profile while still providing durable comfort at or above the performance level of today’s best DWR.

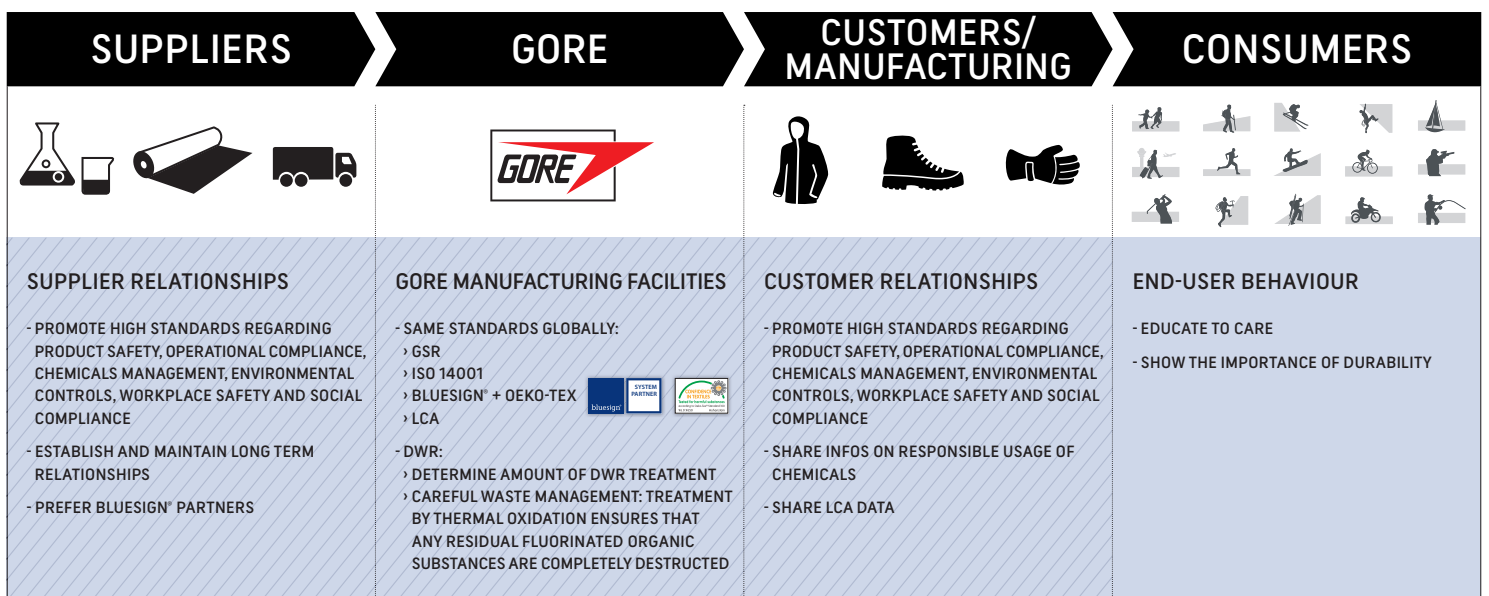
Gore’s current DWR treatment provides a very high durability of water repellency which enables a long useful life for Gore functional outdoorwear products. Life Cycle Analysis (LCA) studies conducted with critical guidance from the Oeko-Institute Freiburg e.V. have shown that the best way to minimize the environmental footprint of functional outdoorwear is to enhance its durability.

*“We are confident that our current DWR treatment provides the best combination of high comfort, durable performance and low environmental footprint,”* says Bernhard Kiehl, Leader of the Gore Fabrics Sustainability Program.

To explore innovative material solutions, Gore Fabrics plans to invest more than \$15 million over the next 5 years.

*“We are open to different ideas and technologies from both internal and external resources,”* says John Cusick, Global Business Leader Consumer Garments. *“Our commitment as a technology leadership company goes far beyond finding alternatives to current coating solutions. We also are exploring completely new approaches that may provide the necessary functionalities in non-traditional ways in order to reduce the environmental footprint of our products and to act as a role model for a more responsible outdoor industry.”*

Throughout the entire value chain, from the relationship with suppliers to the education of consumers, Gore takes responsibility seriously.



## AREA OF GORE’S INFLUENCE

## NEW DYEING TECHNOLOGY IN GORE-TEX® BERGHAUS JACKETS

In an exclusive partnership with GORE-TEX® brand, Berghaus will launch GORE-TEX® 2L Products using COLOURKIND technology for fall / winter 2016. The collaboration creates a new line of outdoor jackets that are not only Durably waterproof and breathable, but more environmentally friendly as well.

INTERVIEW WITH THOMAS KIEBLER, PRODUCT SPECIALIST AT GORE FABRICS

### What is the COLOURKIND program?

TK: The COLOURKIND program is a fabric-dyeing technology initiative that saves 89% in water usage, uses 63% fewer chemicals, and offers a 60% reduction in CO<sub>2</sub> emissions compared to conventional dyeing processes. The technology is set to be incorporated in some of the brand's GORE-TEX® jackets for fall / winter 2016, the first time that's been done and an initiative exclusive to Berghaus.

### How does it work?

TK: Instead of individual strands of unpigmented synthetic yarn being dyed in a process which uses a lot of water and chemicals, the pigment is actually mixed into the plastic pellets which form the basis of the yarn-producing process. That way, when the pellets are extruded into yarn, the output is already permanently, deeply colored and ready to be woven into fabrics.



### What kind of products are available with this new technology?

TK: For fall/winter 2016, the COLOURKIND technology is featured on the Island Peak men's and women's outdoor jackets and pants series, which combines a durably waterproof and breathable 2L GORE-TEX® laminate with a 40d COLOURKIND nylon ripstop face. The goal is to reduce environmental impact under the COLOURKIND banner in the future, for example in GORE-TEX® Pro garments.

Thanks to Life Cycle Assessment studies, we have developed a comprehensive understanding of the environmental impact of our products. Having learned that 22% of the total lifecycle carbon emissions in a GORE-TEX® jacket come from production, we have the opportunity to reduce this through improvements in dyeing and finishing processes, as well as in our choice of raw materials.

## GORE EXPLORES USE OF RECYCLED TEXTILE

For fall / winter 2017, together with our brand partners adidas, Berghaus, Haglöfs, Norrøna, Patagonia, Peak Performance and The North Face, Gore is launching a range of GORE-TEX® products with recycled nylons and polyesters. For fall / winter 2018, we plan to increase the percentage of recycled textiles in our portfolio and expand the number of brand partners deploying them in their collections.

# NEW LIFE CYCLE ASSESSMENT STUDY SHOWS: DWR PERFORMANCE DURING USE PHASE CAN SIGNIFICANTLY IMPACT ITS ENVIRONMENTAL PROFILE

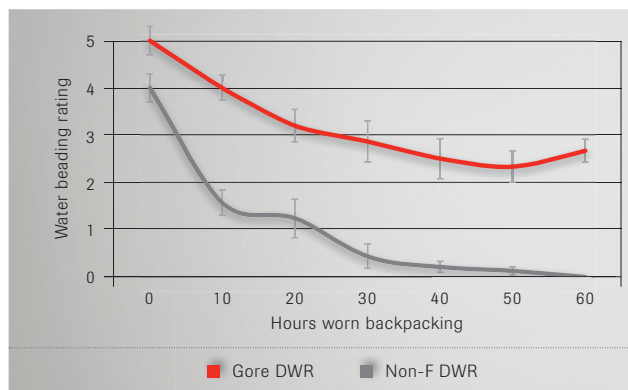
Gore continues its scientific research and has published Life Cycle Assessment (LCA) data focusing on durable water repellent treatment (DWR) for functional outerwear. It is the third LCA study that Gore has published since 2013 and helps guide future choices of DWR technologies. The study revealed that the lower performance of a non-PFC-based DWR treatment is the single biggest driver for the jacket's environmental impact in comparison to other DWR treatments.

## The Field test of DWR treatments

To inform the usage stage of an LCA study, Gore put jackets treated with different DWR treatments through backpacking field tests. In these real life situations, the best available non-PFC-based DWR treatment available to us in 2014 exhibited: after a short period of use, it was observed that this treatment no longer provided effective water repellency. To maintain a satisfactory level of repellency performance, backpackers would have to wash and re-apply DWR treatments more frequently on garments with non-PFC-based DWR's compared with Gore's current short-chain polymer DWR.

*"A well-functioning DWR treatment is crucial to prevent the jacket from saturating with water, which increases weight and discomfort and could lead to reduced concentration and individual performance,"* says Bernhard Kiehl, Gore Fabrics Sustainability Leader. *"Frequently replacing a jacket with low performing DWR comes with similarly negative environmental impacts since the production of a new jacket uses up additional resources like chemicals, energy and water, etc."*

Bernhard Kiehl concludes: *"As a technology leadership company, we are committed to continually reducing the environmental footprint of our products and acting as a role model for a more responsible outdoor industry. To this end, we will continue to invest in research and apply sound science to drive future innovations."*



## What is LCA?

Life Cycle Assessment (LCA) is a global standardized tool (DIN EN ISO 14040) used to measure the environmental footprint of a finished product. LCA assesses the whole process with a "cradle to grave" approach – from raw material extraction through materials processing, manufacture, distribution, use, repair and maintenance to disposal or recycling.



## UPDATE HIGG INDEX

The Higg Index is a standardized supply chain measurement tool used to understand the environmental, social and labor impacts of making and selling products and services. It is the core driver of the Sustainable Apparel Coalition (SAC) which is the apparel, footwear and home textile industry's foremost alliance for sustainable production. By measuring sustainability performance, the industry can address inefficiencies, resolve damaging practices, and achieve the environmental and social transparency that consumers are starting to demand. Gore was one of the founding members of SAC in 2011 and continues to work closely together with the SAC on the development of the Higg Index.



## UPDATE PRODUCT ENVIRONMENTAL FOOTPRINT

The PEF (Product Environmental Footprint) project was initiated by the European Commission to test how the environmental impact of products can be calculated and how it can be communicated to consumers.

Beginning with a May pilot test in stores in Spain, Poland, France, UK, Italy, and Sweden, a newly developed label will be tested on shoes. Sales numbers of labelled products will be tracked and compared with sales numbers of the same, unlabeled products in a very similar control store.

For the SAC, the PEF project is one of the possible future ways to inform consumers about sustainability. Gore has taken an active role in this project as part of its sustainability commitment and leadership role in the apparel industry.

## GORE FABRICS INCREASES ITS BLUESIGN® OFFERING

Since 2010, Gore Fabrics has been a bluesign® system partner. We continue to expand our offering of bluesign® approved Gore laminates into further areas of our product portfolio. This is made possible through collaboration with selected strategic vendors and supply chains as they become bluesign® system partners. In 2015, Gore increased the percentage of bluesign® certified laminates in our global offering for consumer performance apparel to about 65 % of its total laminate volume. Today, Gore offers around 200 bluesign® approved laminates recently adding a portfolio of GORE-TEX® 3L Pro laminates with Microgrid, Ripstop-Grid, and Stretch Grid for 2017 retail seasons. We have begun offering a collection of bluesign approved footwear laminates from our European supply chain. We will continue to add bluesign® approved Gore laminates in these areas of our business.



# ENVIRONMENTAL PROGRAMS AT GORE FABRICS MANUFACTURING SITES

## Manufacturing site Elkton, Maryland

In 2015, the Gore Fabrics plant in Elkton, Maryland worked successfully on a variety of initiatives to reduce overall energy consumption and received ISO 14001 certification.

### 1. Design and installation of an energy monitoring system

A new energy monitoring system allows the plant to track and potentially reduce its energy consumption by process line/area. One project was dedicated to painting the plants roof with heat reflecting white paint to reduce solar gain during hot summer months and reduce the associated energy required for cooling by as much as 10%. Another effort to reduce energy consumption was the replacement of the parking lot lights with LED bulbs. These LED bulbs not only reduce energy consumption, but also provide better security and increased visibility at night.

### 2. ISO 14001 certification completed

During 2015, the Gore Fabrics plant in Elkton, Maryland achieved ISO 14001 certification for their Environmental Management System. They successfully implemented all the required elements outlined in the standard.

## Manufacturing site Shenzhen, China

In 2015, the Gore Fabrics Plant in Shenzhen, China completed a waste heat recovery project as well as a crystal water project. The current heating system was replaced by one that uses both solar energy and waste heat recovery, allowing the plant to reduce CO<sub>2</sub> emissions by up to 347 tons per year.

For the crystal water project, low energy humidification systems have been installed in the production areas, offering several efficiency and operational improvements. The new dry fog humidifier systems lead to a significant energy saving compared to the old ones as well as to a CO<sub>2</sub> emission reduction of 870 tons per year. They also allow more humidifying capacity for precise humidity control to meet production and process requirements. Due to reduced dust and associated static issues, the changes also improved the working conditions for Gore associates.



Manufacturing site Elkton



Stefan Glowacz, GORE-TEX® athlete and sustainability ambassador visited Gore plant in Shenzhen 2014 to discuss environmental programs with Bernhard Kiehl, Leader of the Gore Fabrics Sustainability program

## SOCIAL INITIATIVES 2015

We at Gore believe that it is important to act responsibly not only in our own company but also in the communities we do business in. We are proud to share some of the community and social initiatives of our Gore Associates from around the world.

### **Refugee support programs**

In 2015, many people left their home countries seeking asylum and assistance in other countries. At the Gore's Fabrics facilities in Germany, Gore associates were involved in several initiatives to support those refugees who made their way to Germany.

- The Gore diversity group "Nationalities" collected a total of 2220€ from associates across all of the German plants. This amount was matched by Gore and donated to local refugees' initiatives.
- The project "Munich's Backpack", initiated from the city of Munich, is a program for unattended, underage refugees. The goal is to help these children feel welcome after their often long and arduous journey. Children received a backpack filled with several useful items like a picture dictionary, toiletries and a city map. Gore was happy to support the project with various product donations including cuddly WINDSTOPPER® scarfs, WINDSTOPPER® headbands, gloves and caps.
- Learning the language of a new country of residence is an essential part of successful refugee integration. To support this, Associates in Germany collected dictionaries that were donated to local refugees' accommodations.

### **Product donations for teachers in Nagaland, India**

In January 2015, Gore donated 100 GORE-TEX® garments and 30 pairs of GORE-TEX® footwear to the students and teachers in Nagaland near Himalayas.

To identify the people most in need for the donation, Gore associates in Korea worked with the charity organization "Joy of Sharing." Together, they repaired garments that had been returned to Gore, tested whether the refurbished garments worked well, and then donated those garments and footwear to the teachers and students in the mountainous and cold area in Nagaland, Nepal.



### Outdoor Foundation's Outsiders Ball

In North America, Gore supported the 2015 Outsiders Ball for the third consecutive year. This event raised nearly \$300,000 to support the Outdoor Foundation and community projects. The goal of the Outsiders Ball is to raise funding and awareness for the growing divide between young people and nature. Over the last three years, 300 local community projects connecting more than 58,000 youth with outdoor recreation activities have been supported by these efforts. Gore nominated and funded two grant recipients as a result of the Ball's success:

- Camp Colton in Flagstaff, Arizona, which connected 965 kids to nature and increased their understanding of science and the environment through hands-on outdoor experiences.
- Northbay Chesapeake Wilderness Institute provided 30 Baltimore youth with a 5-day/4-night intensive wilderness education experience. During the week, students studied the Chesapeake Bay ecosystems, learned primitive survival skills, and participated in outdoor recreational activities.



Friends of Camp Colton (FCC)



Chesapeake Wilderness Institute (CWI)

## BRAND AMBASSADORS PEP GUARDIOLA AND STEFAN GLOWACZ DISCUSS ABOUT LEADERSHIP

Pep Guardiola, new GORE-TEX® brand ambassador, visited the Gore booth at the ISPO fair in Munich. In an evening discussion together with athlete Stefan Glowacz, he talked about leadership, passion and Stefan's expedition approach 'by fair means'. *"What we do is not a job, it's a passion. No matter what comes in our way, there's nothing that holds us back"*, Pep said.



Pep Guardiola and Stefan Glowacz



## ABOUT W. L. GORE & ASSOCIATES, INC.

Gore is a technology-driven company focused on discovery and product innovation. Well known for waterproof, breathable GORE-TEX® fabric, the company's portfolio includes everything from high-performance fabrics and implantable medical devices to industrial manufacturing components and aerospace electronics. Headquartered in the United States, Gore posts annual sales of more than \$3 billion and employs more than 10,000 associates with manufacturing facilities in the United States, Germany, the United Kingdom, Japan and China, and sales offices around the world. In Europe, Gore started its first business operations only a few years after the Enterprise's founding in 1958. Gore now has locations – sales offices as well as production facilities – in the key European countries dedicated to serving the markets of all of Gore's product divisions. Gore is one of a select few companies to appear on all of the U.S. "100 Best Companies to Work For" lists since the rankings debuted in 1984. For several years now, Gore has also been voted one of the best workplaces in Europe and has been ranked on top workplace lists in France, Germany, Great Britain, Italy, Spain and Sweden. Learn more at [gore.com](http://gore.com).

## CONTACT

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