



HOHENSTEIN

# ***Turning Performance to Perfection.***

From research and development to testing and certification –  
our services for textile performance.



**”Success is where  
preparation and  
opportunity meet.“**

**Bobby Unser**

## ***Turning Performance to Perfection.***

### **Talent Wins Games, but Teamwork Wins Championships.**

Textile materials for sports, outdoor activities, and athleisure looks must perform their function while boosting, and not hindering, the wearer's performance. Only neutrally tested and certified products have what it takes to support a true champion. Team up with Hohenstein and take advantage of our 75+ years of research, cross-functional expertise, and international reputation. We will work together to make your textiles perform.

# Trust in the Expertise of Hohenstein.

Our know-how is your advantage.



We are an international, recognized, and reliable partner who will guide you through the whole process. With decades of experience and a wide service spectrum for functional textiles, we are one source for everything you need: from the product development to certification, commercialization, and point-of-sale communication.

## Benefit from Our Innovation

- Faster product launches through close cooperation between you and our experts, using state-of-the-art laboratories
- Increased safety and quality through analysis and independent certification
- Lower liability risk and fewer customer complaints through documented exams and standards
- Optimized products, supplier communication, and development processes based on 75+ years of experience
- Access to the latest industry knowledge, standards, and market developments through industry leaders and a global network

# Training Contents.

Our services at a glance.

Comfort.....

Fit.....

Reliability.....

Freshness.

Sustainability.

Improvement.

## Textile Innovations – Fascinating Opportunities

We are passionate about ensuring that new products come to market reliably and safely.

## Independent – For over 75 Years

We are visionary problem solvers offering innovative and tailored services; textile specialists setting new trends and standards; and industry partners with a culture of knowledge sharing, sustainability, and close relationships – worldwide.

## Success – Up Front

We provide customized education, training, research and development, measurement, analysis, inspection, and audit services. Use Hohenstein's worldwide network to avoid costly mistakes as you develop new products and expand abroad.

## Markets – Fast Results

Ever shorter product cycles require speed, flexibility, and reliability. Our knowledge and streamlined processes help you get to market faster. Our trusted labels and certifications help you communicate with your customers.

# Don't Let It Bother You.

We perform for comfort.



## Market Challenge

Comfort is a top priority and directly related to the performance of functional products for outdoor, performance, and athleisure. A perfect balance of function, design, and performance is required to keep athletes and customers focused on their activity, not their gear.

## Our Expertise

Use our unique expertise and fully equipped comfort lab to identify the critical parameters for evaluating product performance and optimizing your product development process.

- Quantitative thermophysiological comfort (heat and moisture management) measurement and the assessment of textiles and clothing using the Hohenstein Skin Model, WATson, thermal mannequins, microclimate sensors, and validated human subjects in climatically controlled environments (temperature, rain, wind, heat load)
- Analysis of fiber material, yarn and fabric construction, finishing, garment making, and layering

- Testing of clothing for breathability and thermal insulation
- Performance analysis of cooling and heating textiles
- Evaluation of skin sensorial properties including wet cling, surface index, and contact points
- Range of motion testing for garments
- Hohenstein Quality label – tool for communicating performance to customers

## Your Results

A streamlined design process for comfortable and innovative performance apparel that leads to loyal customers.

# Fitness Starts with the Fit.

We perform for fit.

## Market Challenge

Improper fit is a recurring issue with restricted freedom of movement and lack of functionality often leading to returns, frustrated customers, and high costs. In addition, there is much interest in the interaction between compression, comfort, and performance enhancement.



## Our Expertise

Integrate our traditional expertise and cutting-edge technology into your product development process.

- Fitting analysis on specified fit models for consistent and comfortable fit
- Pattern services including block patterns, grading and sample development
- 3D scanning technologies to optimize sizing charts
- On-site fit and pattern workshops

Hohenstein has pioneered compression testing and product development for any shape or type of garment.

- Independent testing of elastic material and compression profiles using our proprietary HOSY testing device
- Simulation of compression during movement
- Development of shaping effect by scientific methods

- Integration with 3D scanning for precise body measurements
- Testing for selection of best material and construction for performance preservation and comfort

## Your Results

Guidance through every phase of development to create a signature style, meet market norms, and effectively integrate compression for increased consumer satisfaction. Speed, quality, and consistency, regardless of the manufacturer, facilitated by pattern templates. Customer confidence in the fit and performance of your product – every time.



# No Compromises – No Defeats.

We perform for reliability.

## Market Challenge

Whether on the job or on the slopes, your customer wants gear to keep them protected from the elements, safe from their sport, and focused on the activity at hand.

## Our Expertise

We provide the knowledge and tools to identify materials that work better – no matter what the conditions on your playing field.

- Verification for protection levels against wind, rain, and soil
- Testing and comparison of cut resistance, noise reduction, abrasion resistance, visibility, and overall garment strength
- Reliable UV protection rating before and after subjection to real use using UV STANDARD 801

## Your Results

Validation of supply chain claims for peace of mind that you chose the best technology for your application. Independent verification of claims for happy customers.



# Renew Your Senses.

We perform for freshness.



## Market Challenge

Your customers don't want to feel self-conscious when wearing your product. Everyone wants a long-term, sustainable way to keep clothes as fresh as on the first day. Since the answer is different for every application, you need a partner to help sort through the options.

- Supports you in developing appropriate detergents
- Process optimization for washing and reprocessing

## Our Expertise

Our team has been researching textile freshness for decades and developing advice for absorbing, eliminating, washing away, or disguising signs of use and abuse.

- Analysis of odor binding and elimination
- Practical evaluation of antimicrobial effectiveness
- Evaluation of scented textile technology
- Expertise in consumer safety and claims  
Hohenstein supports you in optimizing the care of textile products to achieve a long life and a low impact on the environment.
- Analysis for home and commercial laundering and professional dry cleaning

## Your Results

Verified product claims and customers who feel good in your product, with every use as good as the first.



# A Victory for People and the Environment.

We perform for sustainability.

## Market Challenge

Sustainability means something different to everyone – buying products that are safe for your family and the environment, tracing where and how a product was made, or knowing that

a product's end of life might contribute to a new beginning. The common thread is that consumers and suppliers want to do the right thing, and need clear, easy ways to do so.

## Our Expertise

We continuously aggregate consumer and regulatory trends to help you comply with laws and stay ahead of the market.

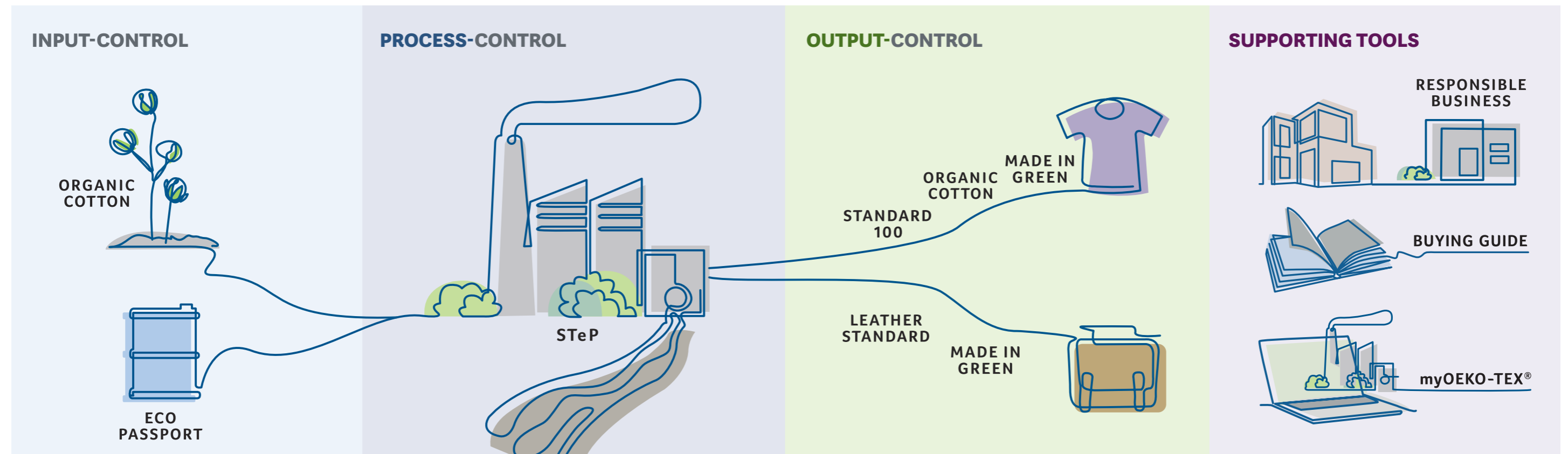
- Testing for harmful substances on textiles, leather, and other materials
- Screening, identification and quantification of genetically modified (GMO) cotton
- Biodegradability assessment to determine loss of mass and toxicological soil impact to provide product testing and optimization

## Your Results

Protection of your customers. Protection of the employees and the environment where your product is made. Protection of your brand reputation. Knowledge of your product's end of life. Independent verification throughout the supply chain that can be clearly communicated to consumers.

## OEKO-TEX® System

As a founding member of the OEKO-TEX® Association, Hohenstein supports companies along the textile value chain in matters of product stewardship and sustainable management.



# Good Isn't Good Enough.

We perform for improvement.



## Market Challenge

Consumers need an easy way to identify what products to trust. Companies need accurate and complete instructions for their suppliers. Everyone needs a way to compare products between suppliers and brands.

## Our Expertise

For smooth implementation, consistent manufacturing, and clear expectations, we help you define specifications and communicate with your supply chain.

- Goal refinement and descriptions for technical performance
- Defined material requirements, production details, and parameters



For proving your claims, we provide support and communication tools.

- Hohenstein quality labels for credible, concise communication with consumers
- Data and scientific support for validation of claims and substantiation of marketing language

## Your Results

Clear communication with your supply chain of accurately defined requirements for easier quality verification, greater supply chain efficiency, reduced workload, and lower costs. Clear communication with customers for the easy identification of products they can trust.



## Your Partner for Textile Expertise.

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