



OUTLAST® TEMPERATURE REGULATION

STAY WARM, KEEP COOL, BE COMFORTABLE

Outlast® Temperature Regulation was originally developed for NASA to ensure astronaut comfort during space exploration. Initially engineered for spacesuits and gloves, this innovative technology addresses the extreme temperature fluctuations encountered in the harsh environment of space. Recognizing its great potential, Outlast's founders, who themselves experienced discomfort during various outdoor pursuits such as flying, fishing, skiing, biking, and hunting, foresaw its application in everyday apparel and bedding for people worldwide.

Ever since, our journey has been one of continuous innovation and new developments. Over the decades, we have integrated Outlast® Temperature Regulation into an extensive range of products spanning apparel, footwear, bedding, and beyond. This integration has been fueled by our commitment to enhancing comfort and performance through cutting-edge solutions.

Our dedication to quality and innovation is evident in our extensive portfolio of patents and the rigorous testing conducted by independent global laboratories. Each product bearing the Outlast® name undergoes meticulous scrutiny to ensure it meets our high standards of performance and durability.

Looking forward, our commitment to innovation remains unwavering. We are actively developing new technologies and exploring novel applications of Outlast® Temperature Regulation. This includes forging new partnerships and launching exciting new brands that leverage our expertise in temperature regulation and comfort enhancement.

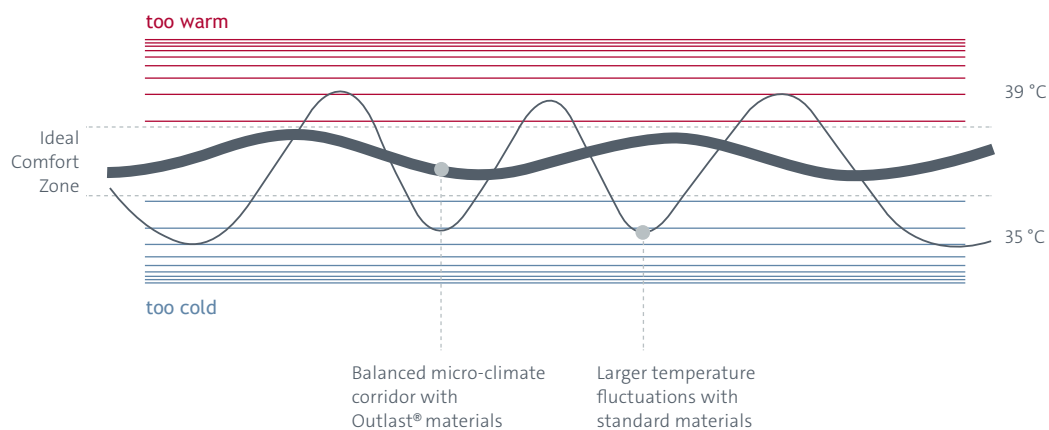
As we continue to push the boundaries of what's possible in comfort technology, we invite you to join us on this journey. Together, we will shape the future of comfort and performance in everyday products across the globe.



OUTLAST® TEMPERATURE REGULATION: COMMITTED TO COMFORT

EXPERIENCE THE OUTLAST® DIFFERENCE! HERE'S A BRIEF OVERVIEW OF THE BENEFITS OF OUTLAST® TEMPERATURE REGULATION: OUTLAST® TEMPERATURE REGULATION IS ALL ABOUT ENHANCING COMFORT AND PERFORMANCE IN EVERY ASPECT OF YOUR LIFE.

BETTER SLEEP	Maintain a balanced temperature for deeper, more restful sleep with significant sweat reduction
IN SHOES	Say goodbye to blisters and odors as moisture is reduced
FOR ATHLETES	Stay comfortable with reduced sweating, lower energy consumption, and improved fluid balance
TEXTILE COMFORT	Enjoy „feel-good clothing“ with enhanced comfort in various textile applications
ENHANCED CONCENTRATION	Improve focus and performance in occupational health and safety gear
ORTHOPEDIC COMFORT	Experience superior functionality and comfort in orthopedic „next to skin“ products
LEISURE ACTIVITIES	Reduce the risk of feeling cold due to wet textiles during leisure activities like hiking or gardening



UNLOCKING PERFORMANCE: OUR LICENSING MODEL FOR QUALITY AND PARTNERSHIP

At Outlast, we operate on a licensing model. This means that each of our partners and customers signs a licensing agreement with us before starting serial production. It's free for our customers and serves several important purposes.

First and foremost, it protects our valuable trademark and patent rights and ensures that all Outlast® products meet the highest quality standards. This commitment to quality is essential in providing your customers with exceptional experiences and establishing your brand as a symbol of comfort, functionality and innovation.

Moreover, the licensing agreement provides legal security, clarifies technical matters, and grants access to our marketing support. It establishes a clear and accountable foundation for our partnership, outlines specifications, and unlocks marketing resources, enabling us to work efficiently and effectively together.

In summary, our licensing model represents our dedication to excellence and collaboration. It protects your interests, upholds the integrity of our brand, and opens up opportunities in the market. Together, we can continue to create outstanding Outlast® products that redefine comfort and quality for consumers worldwide.



TEMPERATURE REGULATION UNVEILED: DECODING OUTLAST® TEMPERATURE REGULATION

The heart of Outlast® Temperature Regulation is natural wax. Safely enclosed in microcapsules, it can be easily applied to a textile or incorporated into yarns or fibers. When the human body produces excess heat, the natural wax starts to melt within the microcapsules. Thanks to this melting process, the natural wax is able to absorb and store heat. Thus, the textile buffers the heat and the human body does not warm up further. Instead, the user remains in his or her individual climatic balance and sweating can be reduced or sometimes even avoided.

When physical activity decreases or the outside temperature drops, Outlast® smart fabrics are able to release stored heat back to the human body. The natural wax solidifies and releases heat. Through this constant active temperature adjustment, Outlast® keeps the user comfortable at all times.



„I STILL LOVE THE WOW EFFECT
WHEN CUSTOMERS FEEL THE OUTLAST®
TEMPERATURE REGULATION FOR THE FIRST TIME.“

Martin Bentz, CEO Outlast Technologies GmbH

HOW DOES OUTLAST® TEMPERATURE REGULATION WORK?

Excess heat is released from the body



Heat is absorbed and stored by the fabric



Body cools down



Fabric releases heat back to the body when needed



Body's micro-climate is always well balanced



This cycle is constantly active and reduces sweating and freezing.

Depending on the application,
Outlast materials can reduce
the amount of perspiration **by up to 48 %.**

The background of the page features a light gray, abstract line art design. It consists of several overlapping, organic shapes that resemble leaves or petals, with thin, flowing lines extending from them, creating a sense of movement and natural form. The lines are simple and elegant, contributing to a clean and modern aesthetic.

HIGH-PERFORMANCE MATERIALS: RESOURCESAVING, NATURAL, AND FUNCTIONAL

The natural wax used in Outlast® Temperature Regulation is made out of rapeseed oil, which is a renewable and sustainable raw material. Through our extensive research we are able to offer thermal comfort on a wide variety of base materials including recycled or renewable textiles, many of which meet the Oeko-Tex® Standard 100.

Additionally, products with Outlast® Temperature Regulation are resource efficient in and of themselves. Less perspiration means less laundering. This results in less water and detergent being used, and fewer fibers coming loose and entering the water cycle during the wash. This is good for both the environment and your wallet.

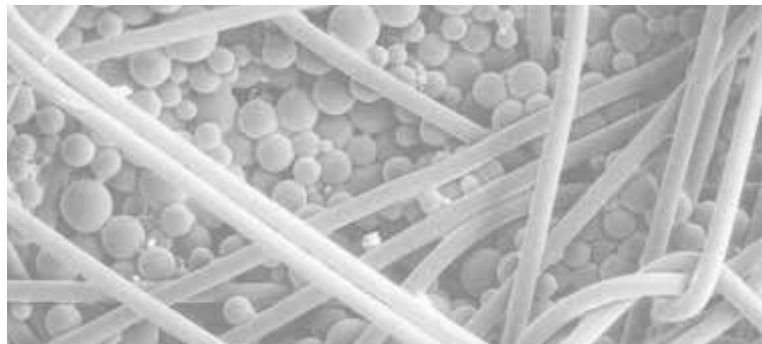


HOW THE OUTLAST® TEMPERATURE REGULATION COMES INTO YOUR PRODUCT?

It is part of the Outlast DNA to provide you with the best possible advice during an in person meeting and to offer you the optimal solution for your individual product. However we would like to give an overview of the four possible applications here:

COATING

Fabrics coated with Outlast® Temperature Regulation offer a very high thermal absorbance capacity. The microencapsulated natural wax is applied over the surface of textile materials using intelligent printing coating methods. Outlast offers a wide range of coated materials, which are used as linings found in bedding, clothing and shoes.



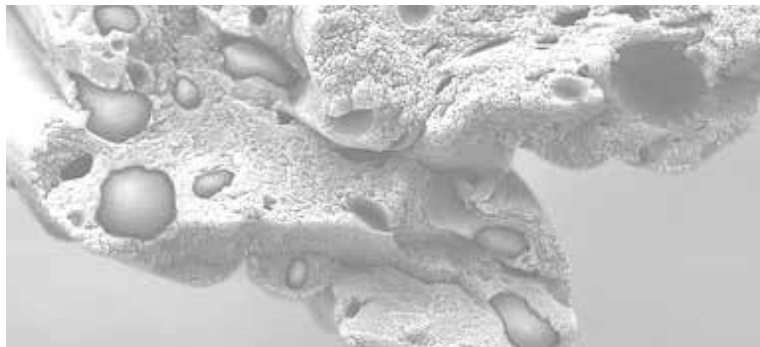
OUTLAST® MIC

Outlast® Matrix Infusion Coating (MIC) is a special process in which the textile surface is printed with a wafer-thin layer of micro-encapsulated natural wax. The original properties of the fabric are retained. This process is ideal for large “next to skin” product ranges in which you prefer to use your own fabrics. Perfect for the active leisure and sports clothing market.



FIBERS AND YARNS

The microencapsulated natural wax is embedded directly into fibers, which can be spun into yarns and then knitted or woven. Outlast® fiber applications are suitable for products that are worn directly against or very close to the skin (underwear, shirts, etc.). They can also be used as fiber filling for duvets, pillows, jackets, etc., as well as down, natural fiber, or synthetic fiber mixtures.



FRESH2SKIN

Via a dipping bath you can apply Outlast® Cooling Technology with menthol, which reacts with the skin's cold receptors and triggers a lasting nerve stimulus. The result is temperature regulation plus a feeling of coolness. It works with a wide variety of base materials such as cotton (including blends), synthetics, knits or wovens and is suitable for large next-to-skin programs.

