



Not too **hot**, not too cold — just right™
ADAPTIVE TEMPERATURE REGULATION



THE OUTLAST® ADVANTAGE

Wearable comfort that adapts to every moment.

Originally developed for NASA space technology, **Outlast® Temperature Regulation** proactively manages heat before you overheat — and releases it back when you cool down. The result is a constantly balanced microclimate and real, measurable comfort in any product it touches.

—**48%**

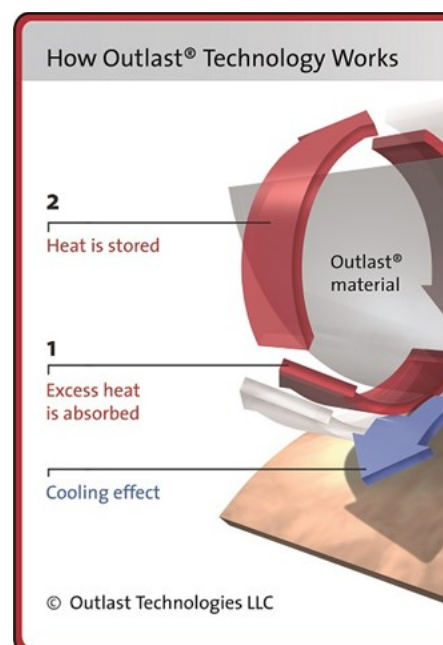
Independent laboratory tests show Outlast® materials **reduce sweat formation by up to 48%*** across clothing, footwear and helmets — keeping the wearer drier, cooler and more comfortable for longer.

How the Outlast® effect works

A heat source — usually the wearer's body — transfers heat to the Outlast® material, which contains **microencapsulated natural wax** that liquefies under warmth.

The wax is sealed inside microscopic capsules. By a physical law, temperature stops rising while the wax changes from solid to liquid — the body heat melts the wax instead of heating the microclimate. The material acts as a **heat buffer**, absorbing your temperature peaks.

As the body cools, the wax crystallises again — releasing the stored heat back to you. This cycle repeats endlessly and never wears off.



WORKS BOTH WAYS

A constantly balanced microclimate



The beauty of the technology is that it works in **both directions** — cooling *and* warming, depending on the situation. When you heat up, the wax absorbs the excess. When you cool down, crystallisation releases it back.

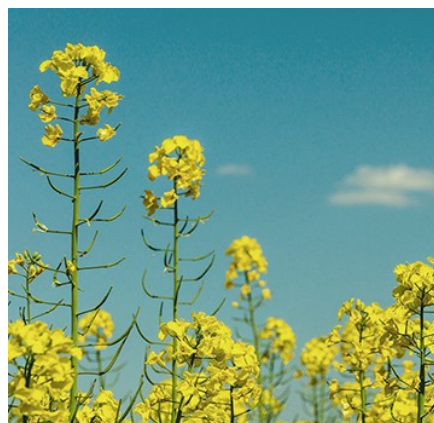
Through continuously changing temperatures across the day and night, Outlast® keeps textiles at a **comfortable, even temperature** — automatically, and without you noticing.

NATURALLY DERIVED

Powered by natural wax

The phase-change wax at the heart of Outlast® is typically **based on rapeseed oil** — a naturally sourced material, safely encapsulated so it performs reliably wash after wash.

No batteries, no electronics, no maintenance. Just physics, working quietly inside the fabric to keep you comfortable.



TRUSTED IN THE MARKET

Outlast® in use

Well over **300 brand manufacturers** build Outlast® Temperature Regulation into their products — offering their customers more comfort and genuine functional added value.

• Bedding & Home Duvets, pillows, mattresses & home textiles	• Sport & Leisure Performance and everyday apparel	• Footwear Shoes, boots & insoles
• Accessories Gloves, caps, helmets & more	• Seating Office, automotive & furniture	• Orthopedics Medical & supportive products

* Tests for various final applications such as clothing, shoes and helmets conducted by C. Russ – INSIDE CLIMATE, an independent test laboratory in Munich (THG AreaView – SleepView). Details on request.

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