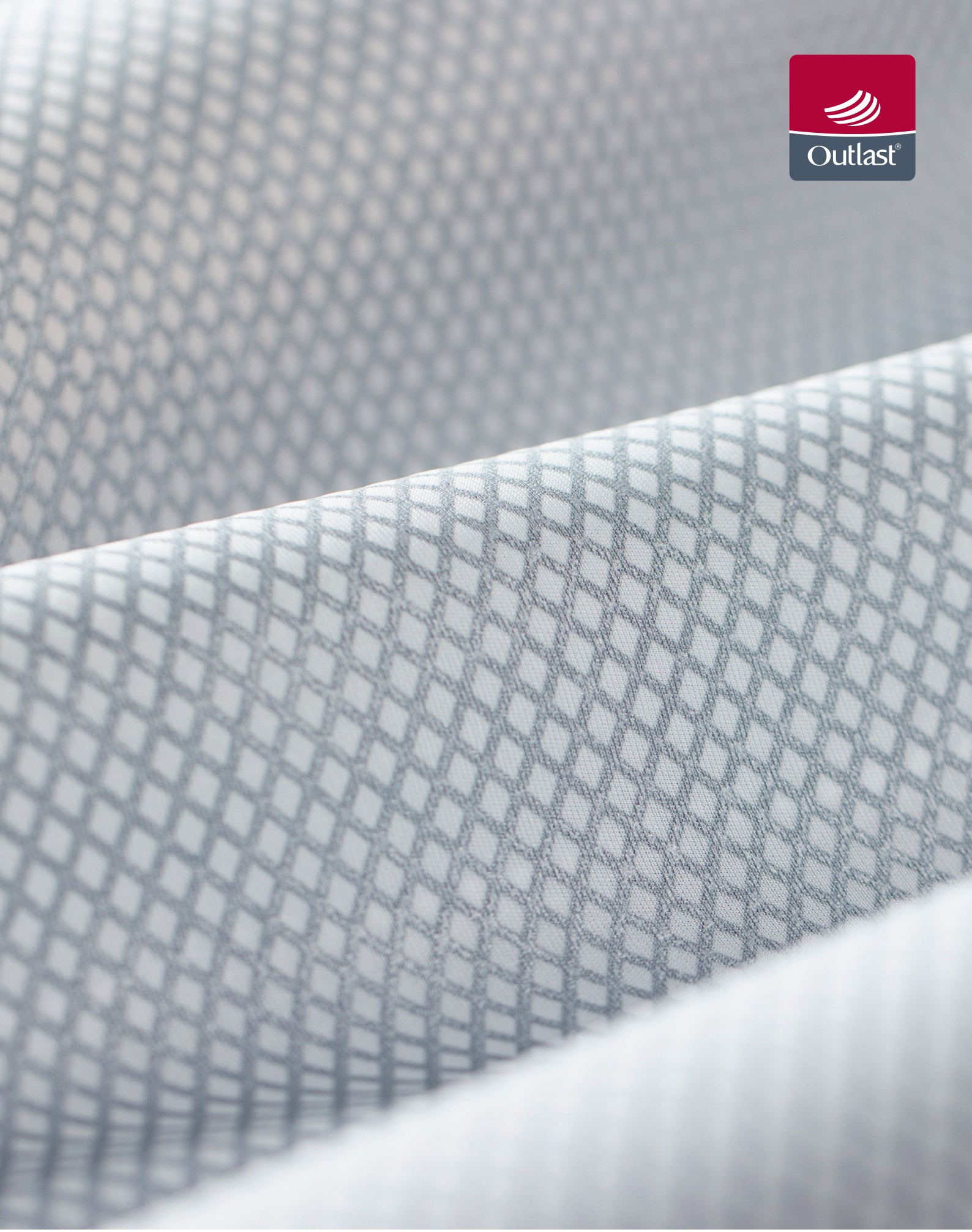


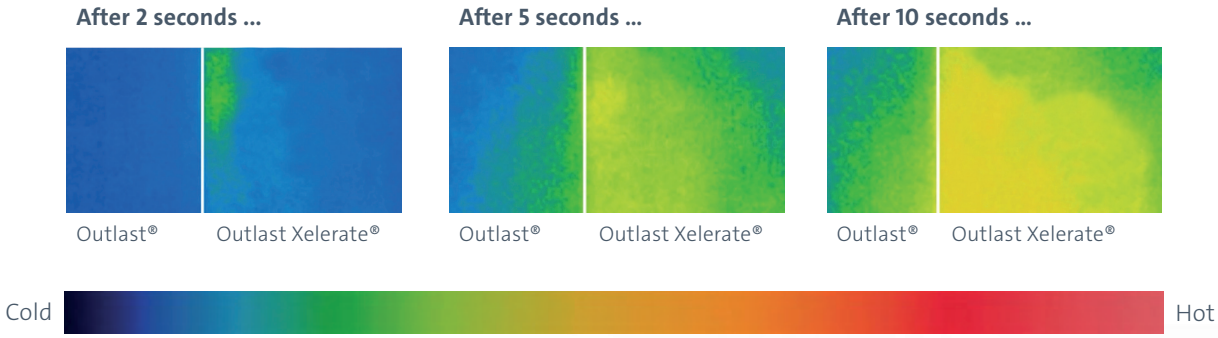
OUTLAST XELERATE®

INNOVATIVE AND EFFICIENT: HEAT DISTRIBUTION WITH XELERATE®

The Xelerate® product line from Outlast is tailored for products with the most demanding requirements in efficient temperature and moisture control. Xelerate® integrates Outlast® Thermo-Technology with innovative functionality to expedite heat distribution. Excess heat disperses much more rapidly, enabling more active and effective heat and moisture management.

FACTS FROM THE LAB

A heat lamp shines with equal intensity on two Outlast® material samples, one with conventional Outlast® Thermo-Technology and the other with Outlast® Thermo-Technology plus Xelerate® on top.



CONCLUSION

Fabrics enhanced with Xelerate® further increase the capability to absorb excess heat at a higher rate and distribute it more efficiently within the textile. This heightened capacity for heat dissipation enhances comfort and diminishes moisture production.

FACTS ABOUT INFRARED PICTURES

Infrared (IR) pictures clearly show how temperature regulating materials work. From the basic laws of physics, all bodies (humans, plants, objects) release energy in terms of thermal radiation. The higher the object's temperature, the more intensive the infrared radiation which it releases.

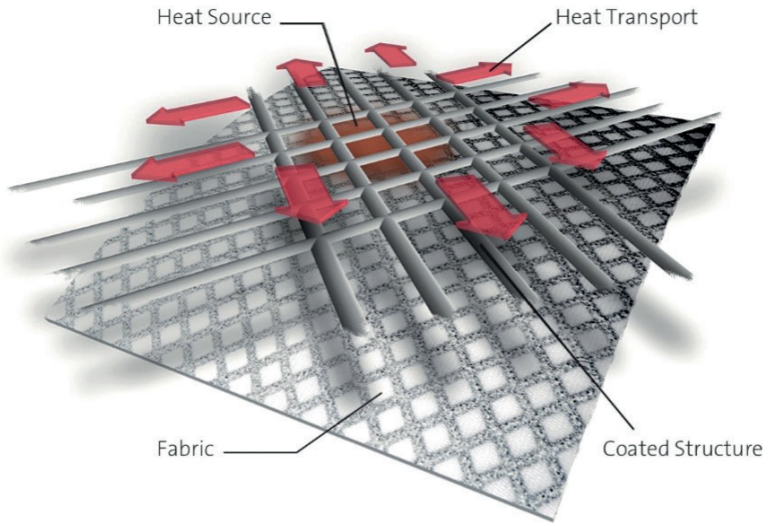
HOW XELERATE® WORKS

Xelerate® operates through a unique application of natural wax infused with heat-spreaders. These heat-spreaders react not only where the user directly contacts the material but also in surrounding areas. Consequently, the active heat-absorbing area expands, rendering Xelerate® material more efficient than traditional Outlast® Thermo-Technology.

Moreover, Outlast has devised an innovative mesh structure that further expedites and optimizes heat distribution, leading to a significant reduction in sweat production.

Laboratory tests have demonstrated that Outlast Xelerate® technology can increase thermal conductivity by up to 30 %.* The consumer benefits are evident: Xelerate® can delay or even prevent the onset of sweat production, thus enhancing comfort and alleviating pressure on the user‘s moisture balance.

* Compared to conventional Outlast® textiles



WHAT IS OUTLAST® THERMO-TECHNOLOGY?

At the core of Outlast® Thermo-Technology lies natural wax, safely encapsulated within capsules. The wax initiate melting when the wearer experiences elevated temperatures. During this melting phase, the natural wax efficiently absorbs and stores excess body heat within the textile. This ensures a comfortable experience, as the heat no longer disrupts the wearer’s microclimate. As the wearer‘s temperature decreases, such as in cooler environmental conditions or during reduced physical activity, the smart Outlast® textiles release the stored heat back to the wearer. This efficient technology enhances comfort and performance while simultaneously reducing sweat production by up to 48 %*.

* 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.

WHAT ARE HEAT SPREADERS?

Heat-spreaders are materials with high thermal conductivity, which transport and spread heat away from a heat source. With the support of the heat-spreaders the natural wax inside the capsules close to the heat source can regenerate faster and have a greater ability to reduce overheating

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