HEIQ SMART TEMP INTELLIGENT THERMOREGULATION

ACTIVATED COOLING

HeiQ Smart Temp is an innovative thermoregulation technology that provides fabrics with the ability to dynamically respond to body heat. The cooling function is activated when you are hot and sweaty and deactivated once cooling is complete.





Outstanding qualities

- · Keeps you cool and comfortable
- Revolutionary and patent pending dynamic cooling technology
- Up to 2.5°C/4.5°F cooler fabric temperature
- Helps to maintain a balanced temperature day and night

Added value

- Proven performance more than 5'000 times successfully tested
- Durable and exceptional performance for the lifetime of the product
- Used by 50+ major brands globally on more than 300 million garments
- Trusted technology for more than 10 years
- No impact on fabric properties

Wide-ranging applications

- Applicable to work on any fiber type: natural, synthetics and blends
- For apparel, hosiery & home textiles
- Suitable for most application methods

Standards

- bluesign approved
- OEKO-TEX suited
- ZDHC compliant
- Meets most brand RSL requirements

WHAT DOES IT DO?

HeiQ Smart Temp is a revolutionary textile technology that enables fabrics to interact with the body and dynamically respond to rising skin temperatures. HeiQ Smart Temp provides optimal cooling and comfortable dryness thanks to a patent pending hydrofunctional polymer. The cooling function is activated when the body gets hot and sweaty, and deactivated once cooling is complete, ensuring optimal comfort and performance.

WHAT IS IT FOR?

HeiQ Smart Temp is ideally designed for clothing that are within reach of body heat and skin's moisture. Especially suitable for next-to-skin apparel, sportswear, activewear, intimates and hosiery, but also for the linings of winter garments and home textiles such as sheets, bedding accessories and mattress ticking.

LIKE A SECOND SKIN

HeiQ Smart Temp mimics our body's natural ability to regulate body heat. Triggered by rising body temperature and moisture, the **vaporizing energy action** pushes away sweat together with heat to achieve a cooling effect. This effect is deactivated once cooling is complete or when there is a sudden drop in surrounding temperature. Therefore, helps to avoid the discomfort feeling chilly.

Vaporizing energy action

Continuous cooling activated by heat and sweat

The hydro-functional polymer changes its form and affinity to **moisture** at **different temperatures**.

becomes	t ional polymer liquid with g temperature e capture		
Feeling	cool		
		H ₂ 0 released Increasing Temperature Decreasing	
I	Hydro-functional polymer with absorbed H ₂ 0	H ₂ 0 captured	Hydro-functi polymer w collapsed stru

Feeling hot & sweaty

Moisture release

Cooling ACTIVATED

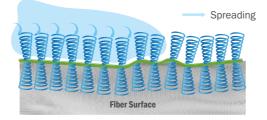
Vaporizing energy action - DYNAMIC MOISTURE TRANSPORT

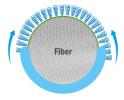


Feeling cool

- High moisture affinity
- Slow spreading
- Reduced evaporation

Water spread is **slowed** by the interaction with the polymer





Moderate moisture spreading on fiber surface



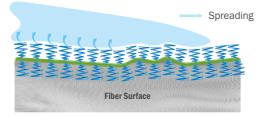
Feeling hot & sweaty

- Low moisture affinity
- Rapid spreading

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Faster evaporation

Water spread more **rapidly** as interaction with polymer is weaker





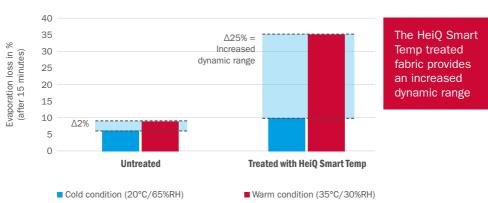
Rapid spreading of moisture on fiber surface

Cooling DEACTIVATED

Ocoling ACTIVATED

DYNAMIC EVAPORATION TEST

Dynamic Evaporation performance - Untreated vs. HeiQ Smart Temp treated



Untreated fabric

 Δ = Difference between cold and warm condition

MAKE HEIQ SMART TEMP VISIBLE



(20°C/68°F)

(35°C/95°F)



Making products more sustainable by adding intelligence to it

HeiQ Smart Temp technology is designed to meet the highest industry standards.

- Exceptional efficiency and durability
 to washing
- Bluesign approved, ZDHC compliant, OEKO-TEX suited and meets most brand RSL requirements

HEIQ SMART TEMP





SYSTEM



HEIQ 9 Differentiate.

Version 2024-09



Get inspired and learn more about our innovative technologies and marketing support on:

www.heiq.com

HeiQ Materials AG

Ruetistrasse 12, 8952 Schlieren (Zurich) Switzerland info@heig.com, +41 56 250 68 50

For more details and references please ask for our HeiQ Smart Temp Technical presentation