THIS HARE HAS TAUGHT US A LESSON.

GORE-TEX Insulated Comfort Footwear **REDEFINED**

The hare has taught us that: High insulation and lightness are not contradictory. It's possible to be quick and agile in safety footwear without freezing.

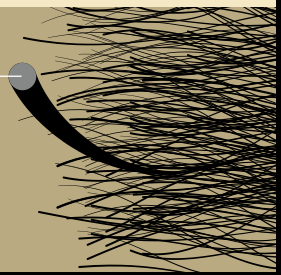
A new footwear laminate development within the GORE-TEX Insulated Comfort Footwear product class combines efficient thermal insulation with even less weight – without sacrificing the features you've grown to expect from GORE-TEX such as durable waterproofness and breathability. The outcome: 15% less weight with the same level of thermal protection - made possible by means of a new insulation technology. The diagram illustrates how we have put the insulation on a "diet".

New insulation – 15 % lighter*

- Reduced weight by using hollow fibres and less fibrous material
- 3-D structure traps more air (=insulation)
- Retractive force of the fibres promotes flexibility and wear comfort

Conventional insulation

- Extra weight by using more conventional fibres
- 2-D layered structure traps less air (= insulation)
- Staple fibre structure reduces flexibility and retractive force



*vs. comparable GORE-TEX footwear laminates with $R_{ct} \geq 100$ [$10^{-3} m^2K/W$]

GORE-TEX INSULATED COMFORT FOOTWEAR

LIGHTEN UP. STAY WARM AND DRY.

The new insulation technology enables our partners to develop lighter, highly insulated GORE-TEX safety boots.

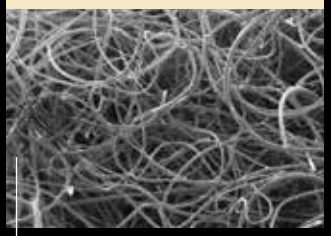
GORE-TEX INSULATED COMFORT FOOTWEAR REDEFINED

The new GORE-TEX footwear laminate has the same 4-layer construction as conventional insulated GORE-TEX footwear laminates consisting of a highly abrasion resistant textile lining material, the microporous GORE-TEX membrane, an insulation layer and a protective knit. The secret of the new laminate lies in the new insulation technology.

IT'S A SUBTLE DIFFERENCE BUT AN IMPORTANT ONE

The new technology allows for the same level of insulation by trapping more air while using fewer fibres. The lighter weight is beneficial to the wearer.

New insulation – 15 % lighter*



Fewer, lightweight hollow fibres, low fibre density

Conventional insulation

Many, tightly packed, standard fibres

INNOVATIVE INSULATION – EXTREMELY LIGHTWEIGHT, HIGHLY INSULATING AND DURABLE

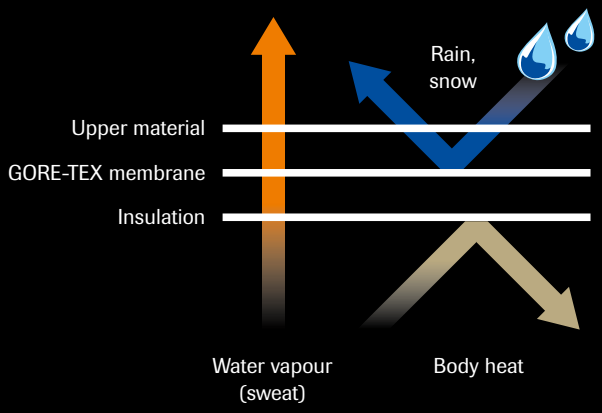
The insulation material is a billowed non-woven made with lightweight, synthetic hollow fibres. The arrangement of the fibres produces a three-dimensional structure with a low fibre density. The trapped air results in a high level of insulation, the open structure in a high water vapour transmission rate.

The "memory effect" of the tangled-fibre structure also plays an important role: the individual fibres always return to their original light and airy shape, providing weightless warmth, even after the kind of pressure that occurs during walking movements has been exerted. This translates into lightweight and durable cold weather protection while simultaneously offering the wearer a more comfortable fit. At the same time the new insulation is 15% lighter*.

GORE-TEX MEMBRANE KEEPS THE INSULATION DRY

The durably waterproof and breathable GORE-TEX membrane ensures that the insulation is reliably protected against water penetration from the outside. At the same time, the sweat can easily escape to the outside in the form of water vapour. The insulation stays dry and maintains its insulation efficiency. Your feet stay dry and comfortable

WET MEANS COLD – DRY MEANS WARM



If insulation gets wet with sweat or from water it will lose its insulating properties. Damp or wet insulation will conduct body heat to the outside as much as 6 times faster than when it is dry. It will also feel cold and uncomfortable.

Key attributes of the new GORE-TEX Insulated Comfort Laminate:

- Extremely lightweight – as much as 15% less weight*
- Durably high level of thermal insulation due to hollow fibre structure ($R_{ct} \geq 100$ [$10^{-3}m^2K/W$])
- Durably waterproof
- Breathable
- Enhanced wearer comfort thanks to the softness of the insulation
- Extremely hard-wearing

*vs. comparable GORE-TEX footwear laminates with $R_{ct} \geq 100$ [$10^{-3}m^2K/W$]

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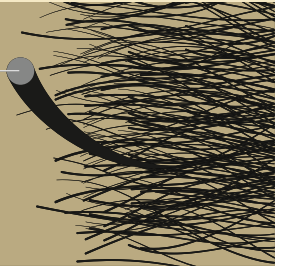

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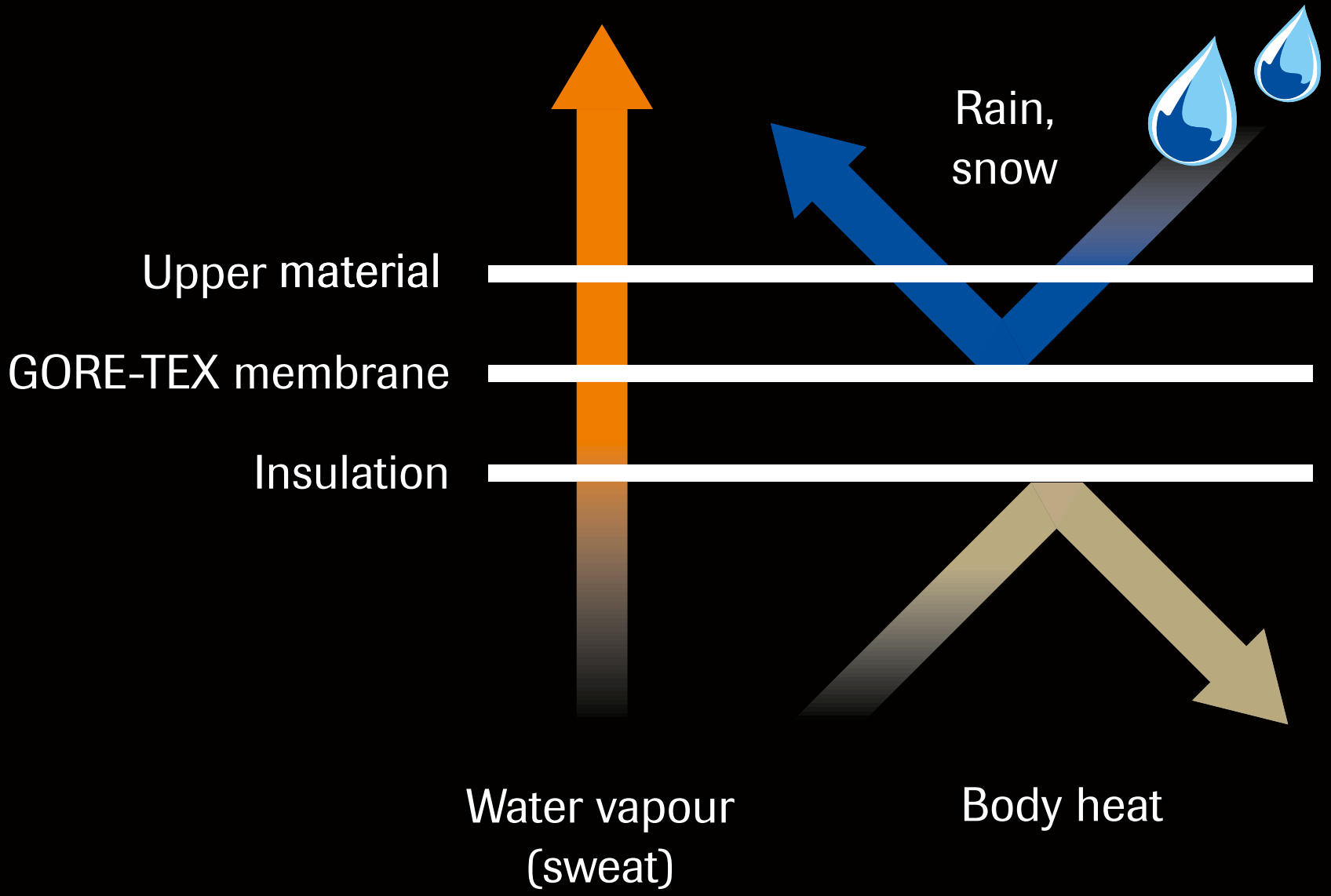
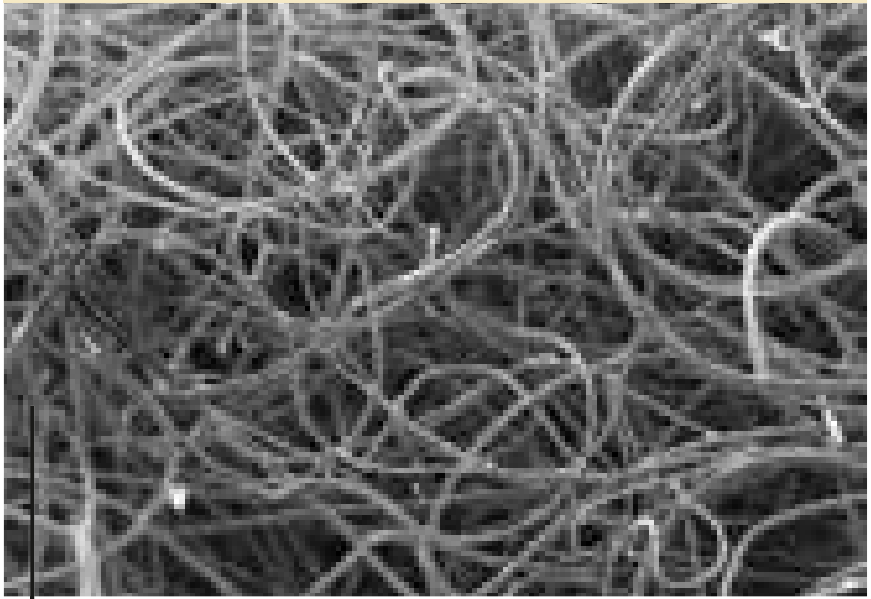

Rain,
snow
Upper material
GORE-TEX membrane
Insulation
Water vapour
(sweat)
Body heat

New insulation – 15 % lighter*



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