

Lightweight combat boots with high climate comfort for warm or hot environments

In recent years the role of the military has changed dramatically. Footwear worn by military personnel has to satisfy a broad range of requirements and usually under different climatic and geographical challenges. At the same time the expectations of the soldiers have also changed. They are more accustomed to wearing athletic and functional shoes with attractive designs in their leisure and sports pursuits. They have come to expect the same features and functions in their military boots.

Tactical GORE-TEX® Extended Comfort Footwear from W. L. Gore & Associates offers a technical solution for a light-weight and agile military combat boot providing high climate comfort. This highly breathable footwear has been specifically designed for military missions carrying lighter loads in moderate and hot climates, without sacrificing durable water-proofness. It is suitable for a range of operations: on barracks or field camp duty, on patrol, marches, or during urban combat operations.

At the core of these boots is the GORE-TEX® Extended Comfort Laminate: an exceptionally thin, robust laminate. This laminate is highly breathable. It is extremely effective at transporting sweat to the outside and reliably prevents the feet

from overheating. These boots are ideal for elevated temperatures or periods of physically strenuous activity. The laminate creates a durable barrier against water penetrating from the outside whilst offering protection against penetration of chemicals including diesel, cleaning agents and battery acid. Quite simply, the feet are reliably protected from water exposure and undesirable liquids.

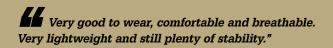
The design and construction of these combat boots have been inspired by the outdoor footwear sector. This has led to the creation of a lightweight, highly flexible boot with good ankle support. The construction facilitates fast movements providing plenty of support and stability over average terrain.

The performance capabilities of Tactical GORE-TEX® Extended Comfort Footwear were convincingly demonstrated in a recent user trial using the LOWA Z-6S GTX® boot.

Durably waterproof



The trial boot: LOWA Z-6S GTX®



I like the lining a lot. The temperature regulation is excellent. Your feet feel very comfortable."

Your feet stay dry during long operations and up to 10 km foot marches."

No heat build-up inside the boots when compared with other boots."



Your feet stay comfortably cool even at higher temperatures."

The test was conducted and the data analysed by HYVE, a Munich-based innovation and market research agency.

Tactical GORE-TEX® Extended Comfort Footwear The results of the large-scale MILITARY boots user trial

Details of the user trial

- Full-scale user trial conducted by Gore in cooperation with footwear partner LOWA.
- July October 2015: the combat boots were tested by 49 soldiers from Germany, Switzerland and Austria. They were selected from 219 volunteers recruited via gear and equipment platform www.spartanat.com.
- Extended wear: Over 71% of the wearers wore the boots for more than 6 hours a day – both indoors and outdoors. 22% of them wore them for more than 9 hours a day. Around two thirds of the wearers also wore the boots when they were off duty.
- Activities/uses: The boots were predominantly tested on easy to average terrain at field training and exercise sites and during troop deployments in Southern Europe, Afghanistan and Kosovo. The boots were tested across a wide range of temperatures, reaching up to 40°C in the summer.
- At the end of the 16-week user trial: soldiers completed online questionnaire.
- Data was collected and analysed anonymously by HYVE, a Munich-based innovation and market research agency.

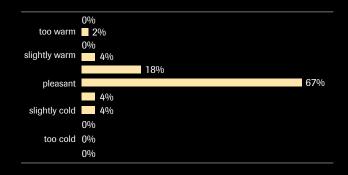
Waterpro

Waterproofness

Almost all wearer trialist were able to confirm that the test boots were waterproof.

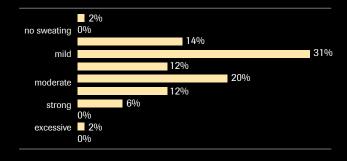
Perception of temperature

89% of the wearers confirmed that the temperature inside the trial boots was "pleasant" – even when the temperatures ranged between 10 °C and 25 °C, or the soldiers were working indoors or in vehicles. In comparison only 46% of the wearers said that the temperature in the boots that they had worn in the past* was pleasant



Sweating

59% of the wearers said they perceived "no sweating" or only "mild" sweating with the trial boots. In comparison, only 28% of the wearers could say that about the boots that they had worn in the past*.



^{*} included boots issued by the military and privately purchased boots.

LOWA Z-6S GTX®

- Durably waterproof
- Highly breathable
- Non insulated for high heat loss
- Sand and dust proof
- Lightweight and flexible
- Resistant to penetration by commonly occurring chemicals (diesel, cleaning agents, battery acid)

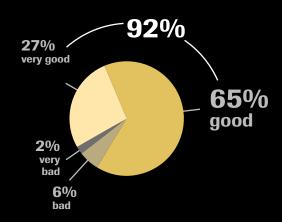
www.lowa.de/task-force



Simply more...

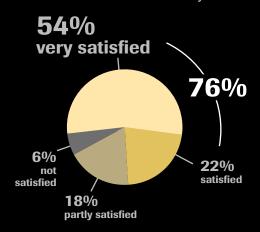
Walking comfort

92% of the wearers were happy with the walking comfort.



Breathability of the inner lining

76% of the wearer were "very satisfied" or "satisfied" with the breathability of the inner lining.





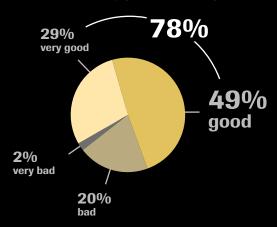
Lightweight, yet with very good ankle support. I'll be taking these boots back to Afghanistan with me next year."

My fellow soldiers and commanding officers both thought that the boots were great. We are thinking about buying them for our army sniper teams."

These boots are the perfect match for urban environments and flat terrain. Offering exceptional ease of movement and less weight, they are highly suitable for rapid response operations."

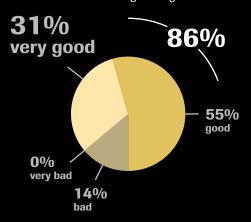
Drying

78% of the wearer said that the drying time of the test boots was "very good" (29%) or "good" (49%).



Weight

86% of the wearer praised the test boots for their light weight.





Overall recommendation: 87%

Easy terra

Afghanistan

Spain

Wooded areas Kosovo

Italy

In the field **Dirt tracks Combat training sites**

Climbing routes