



Patrol GORE-TEX® Extended Comfort Footwear Lightweight, extremely breathable duty boots – specially engineered for hot environments

What are the challenges faced by troops stationed in desert regions? Heat, sand and dust certainly don't make these challenges any less daunting. And what about when soldiers are exposed to waste, sewage, undesirable liquids, or mud while on patrol in urban terrain? The rationale behind compromising on foot protection is hard to understand. Desert scenarios call for duty footwear that combines outstanding heat loss properties with durable protection.

With its Patrol GORE-TEX® Extended Comfort Footwear, W. L. Gore & Associates offers a technical solution which successfully fulfils these performance requirements. The lightweight, extremely breathable patrol boot is specifically designed for missions in hot-dry or hot-humid climates, without sacrificing durable waterproofness. It is suitable for a range of uses – from low to medium liability combat operations, shorter missions with a light load, to combat situations in urban environments. This functional membrane-based combat boot is the first of its kind to perform without a separate inner lining.

At the core of this new boot is the innovative Patrol GORE-TEX® Extended Comfort Laminate. The combination of a highly abrasion resistant, quick-drying monofilament layer, the microporous GORE-TEX® membrane made with expanded polytetrafluoroethylene (ePTFE) and a protective layer produces a laminate that performs without extra insulation.

This new generation of laminate has been specifically engineered to deliver exceptional breathability and outstanding heat loss properties. This laminate is extremely lightweight, breathable and highly effective at transporting most of sweat produced by the foot out of the boot, reliably preventing the foot from overheating. At the same time, the laminate creates a durable barrier against water entry from the outside whilst offering protection against sand and dust, as well as preventing penetration by certain commonly occurring chemicals including diesel, cleaning agents and battery acid. So the soldier's feet are reliably protected from water exposure, sand and undesirable liquids.

Extremely
breathable

Durably
waterproof



**The trial boot:
Equator Alpha GTX® from Meindl**



“ Missions in hot and dry climates. In easy terrain or urban environments. Due to its enhanced flexibility, light weight and exceptional ability to release heat and moisture.

“ The boots were completely dry the next morning, or perhaps even sooner, even after having been drenched in sweat or having filled up with water after wading through water.



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

“ I never had really wet feet from incoming rain or water.

“ Sweat is transported away from the feet really well and your feet don't feel like they are in an aquarium or sauna.

Patrol 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 MEINDL.
- July / August to November of 2016: the duty boots were tested by a total of 49 soldiers from Germany, Switzerland and Austria. They were selected from 200 volunteers recruited via gear and equipment platform www.spartanat.com.
- Extended wear: around 80 % of the soldiers wore the test boots for 2 to 5 days a week, 11% for even more than 5 days a week.. Over 64% of the wearers wore the boots for more than 6 hours a day – both indoors and outdoors. 14% of them wore them for more than 9 hours a day.
- Activities/uses: Most of the testing was done in easy terrain, above all in Central Europe and in sandy/dusty environments. 37% of the trial participants said that they had worn the boots in Southern Europe, Afghanistan, Africa or in desert environments. Most of all the test boots were worn during field training and practice drills, low intensity activities or while on shorter missions with a light load.
- At the end of the 10-16 week user trial the soldiers gave their feedback via an online questionnaire.
- The data was collected and analysed anonymously by HYVE, a Munich-based innovation and market research agency.

Waterproofness

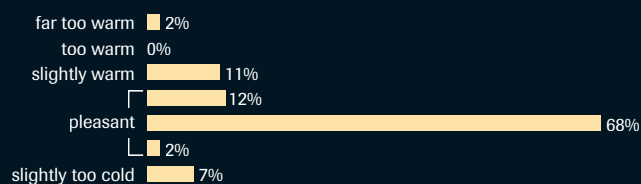


Almost all of the test participants were able to confirm that the test boots were waterproof.

Perception of temperature

82% of the test persons said that the temperature inside the test boots was “pleasant”.

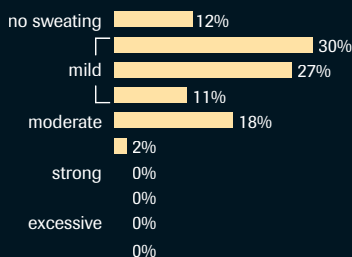
As many as 75% of the trial participants described the boots as being “pleasant” to wear at a temperature of up to 35 °C.



Sweating

80% of the wearers said they perceived “no sweating” or only “mild” sweating in the test boots.

In comparison, only 43% of the wearers could say the same about the boots that they had worn in the past.



MEINDL Equator Alpha GTX®

- durably waterproof
- extremely breathable
- non insulated for highest heat loss
- low water pick-up
- extremely quick re-dry
- sand and dust proof
- protection against exposure to sewage and commonly occurring chemicals

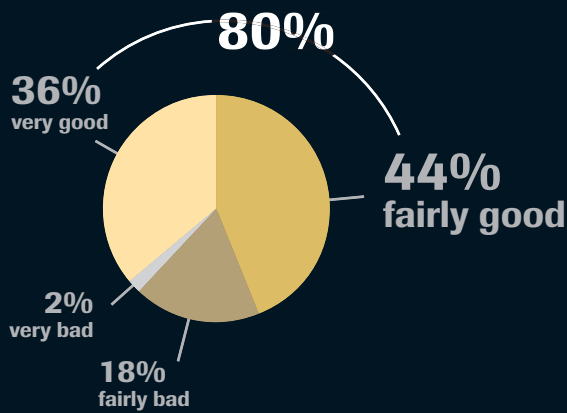
www.meindl.de



MEINDL
Shoes For Actives

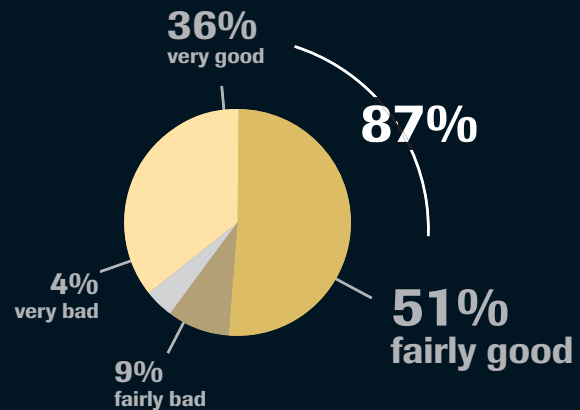
Heat loss properties

80% of the trial participants said that the heat loss properties of the test boots were "very good" or "fairly good". 37% of the participants said that the heat loss properties of the test boots were "significantly better" than the boots they had worn in the past.



Re-drying

87% of the wearers said that the drying time of the test boots was "very good" (36%) or "good" (51%).



“ The **BEST** boots for hot days, ensuring a pleasant climate inside the boots. Even during strenuous physical activity they deliver optimal climate comfort inside the boots. It seems like your feet never get hot and sweaty.”

“ On patrol in Northern Mali, in both urban and desert environments. Occasionally alternating with other boots when on field camp duty.”

“ Lightweight, flexible, a very good duty boot for warm and hot climates.”

“ Very suitable for missions in hot and dry climates.”

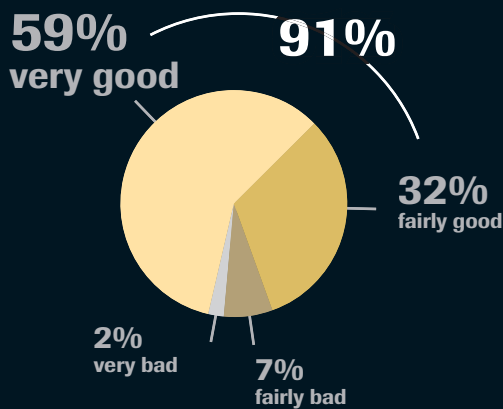
“ The more comfortable choice for summer.”

“ The heat specialist.”

“ Desert All-rounder – one4summer.”

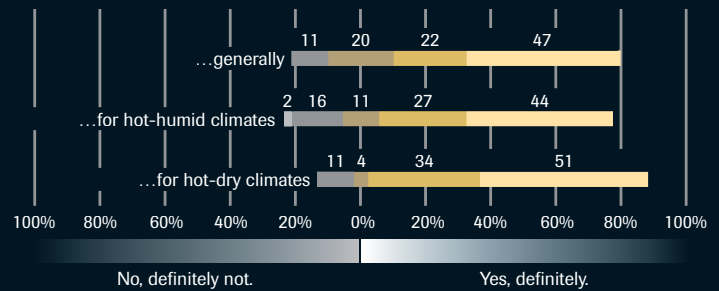
Weight

91% of the wearers praised the test boots for their light weight.



Recommendation

Almost half of the trial participants said that they would “generally” recommend the boots to others, although they also very often recommended them for use in hot-dry climates (51%) and hot-humid climates (44%).



Exercises

Long marches with baggage

Hot & dry regions

Sandy areas

Warm & dry regions

Urban terrain

Tropics / Warm & humid terrain

Static activities

Interim periods of hot & dry to hot & humid areas

Easy patrols

Shooting range

Combat missions

Mountains

Easy terrain

Indoor service

Missions, where you need boots with higher shafts