



Enforce Tac 2024
From Arctic to Desert –
GORE-TEX Professional Fabrics presents range of
garment technologies for the military in modular
concept

Tailor-made fabrics for skin-to-shell and head-to-toe systems in wide range of climates and temperatures ranging from -50 °C to +50 °C

Putzbrunn, (19 February 2024) - As the world faces an increasingly complex threat environment, conflicts loom in diverse climates, from polar regions to deserts. Soldiers face temperature ranges from extremely cold to extremely hot, and climate change is exacerbating these extremes. Armed forces require modular garment systems that protect in these temperatures and help keep their soldiers safe and comfortable while training or fighting. GORE-TEX technologies for different layers of defense garments and footwear provide protective system solutions for extreme conditions with temperatures spreading 100 °C, tested and validated in Gore's biophysics labs.

The specialist for technical functional textiles presents these system solutions at Enforce Tac 2024 in Nuremberg (February 26 - 28, 2024) at booth 7A 537.

Military clothing should always be considered as a system in which the layers are modular and compatible. This is the best way to equip soldiers for a wide range of conditions and situations, from arctic to the desert, from training and maneuvers to combat. Armies procure a toolbox of clothing and footwear that can be expanded and updated over time, where new technologies can be added to an existing clothing system over time - just like updating software.

Nordic Combat Uniform (NCU system) - from the Arctic to the desert and jungle

A prime example is the Scandinavian multinational combat clothing system, the Nordic Combat Uniform (NCU system). It was developed by the NCU group, including GORE-TEX Professional fabrics, for the Nordic Defense Cooperation

(Denmark, Finland, Norway and Sweden). The system consists of several layers - from underwear to an insulated jacket - that work together to create a garment that is more than the sum of its parts. The NCU system is designed so that there are some core garments that are always worn, and then the user selects reinforcing garments either under or on top of the basic configuration, depending on the climatic conditions and mission profile.

GORE-TEX Technologies for the Highest Levels of Protection

Gore's laminates for military clothing systems can be flexibly equipped with proven GORE-TEX technologies to ensure highest fit-for-use – be it mid-layer, outer layer or high insulation layer: GORE-TEX membrane for durably waterproof, windproof, and breathable protection, WINDSTOPPER® fabric technology by GORE-TEX LABS for total windproofness, and insulation protection, PYRAD® technology for heat, flame and flash-fire protection and GORE-TEX Stretch product technology for optimal freedom of movement.

Gore's extensive biophysics lab capabilities ensure performance

While each element of such military clothing systems must perform on its own, the key to overall performance lies in the interoperability of the individual elements of the system. "Even with computer simulations, real-world performance requires solid data from labs and field tests. Gore has a wide range of biophysics lab capabilities, including durability and wet labs, a rain tower, and an environmental and comfort chamber, which sets us apart from the competition," says Oliver Opitz, product specialist at Gore for the Armed Forces. Staying with the example of the Northern Combat Uniform, the system has been extensively tested in Gore's laboratories to ensure that it meets or exceeds performance requirements. But nothing beats testing by soldiers in the field. The feedback from these extensive field tests confirms that the system's fabric is doing what it was designed to do: The highest level of protection and comfort in the roughest of conditions and missions.

Gore revolutionized the outerwear industry with waterproof, breathable GORE-TEX Fabric more than 40 years ago and remains a leading innovator of performance apparel. Gore fabrics products provide comfort and protection in challenging environments and in everyday life, enabling wearers to safely and confidently achieve and experience more. From hiking in downpours to defense operations and fighting fires, Gore's deep understanding of consumer and industry needs drives development of products with meaningful performance advantages. gore-tex.com and goretexprofessional.com

About Gore

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