



GOING FURTHER, TOGETHER

LIGHTWEIGHT WITH FLAME RETARDANCE: COMBAT SUITS WITH NEW PYRAD® PRODUCT TECHNOLOGY PROTECT SOLDIERS FROM FLASH FLAMES – WITHOUT COMPROMISING ON CLIMATE COMFORT

- PYRAD® TECHNOLOGY BY GORE-TEX LABS® IS IDEAL FOR WARM TO HOT CLIMATES AND FOR HIGH-INTENSITY APPLICATIONS
- NEW TECHNOLOGY COMPLEMENTS PRODUCT PORTFOLIO OF FLAME-RETARDANT, MEMBRANE-FREE LAMINATES FOR GROUND TROOPS, AIR FORCE AND NAVY COMBAT SUITS
- FIELD TESTS CONFIRM THEIR HIGH PERFORMANCE

Putzbrunn, (4th March 2026) – The heat shimmers, sweat burns in the eyes, every move must be right: In such moments, climate comfort determines how long concentration and performance are maintained. What was previously often fraught with compromises – flame retardancy on the one hand, lightness, and breathability on the other – is combined in the new PYRAD® product technology by GORE-TEX LABS®, thus complementing the GORE-TEX® brand's product portfolio of flame-retardant, membrane-free laminates for military combat suits.

Many conventional flame-retardant textiles usually come with a dilemma: Although they provide reliable protection against heat and flames, they are often heavy, stiff, and hardly breathable. For soldiers, this means an additional burden in the field - and in extreme cases heat stress, limited freedom of movement and faster fatigue. The new generation of laminates with PYRAD® product technology by GORE-TEX LABS® solves this issue: It offers protection in the event of sudden flames and ensures a more comfortable and cooler feel with its extremely low weight, high air permeability and stretch content - even when using heavy equipment.

Paving the way for combat suits that can be used worldwide

"With the new technology, the GORE-TEX® brand is expanding its product portfolio of flame-retardant, membrane-free laminates for ground troops, air force and navy combat suits – and now covers all climate zones and mission profiles," explains Andreas Marmsoler, Strategic Marketing for the Defence sector at the GORE-TEX® brand: "In addition to the robust generation for temperate to cool climates, a much lighter, more elastic solution is now available. They impress with excellent moisture regulation, quick re-drying, and high wearing comfort in warm to hot climates, especially during high-intensity use.

Depending on the application scenario, the new generation can be combined with other, more robust laminates in a combat suit. For example, lightweight materials can be used in less stressed areas such as the chest or legs, and more resistant laminates in high-wear zones such as shoulders, elbows, or knees.

High-performance material for practice

The compact structure of the material is made possible by the PYRAD® product technology, which is based on a physical effect: it consists of countless small reactive graphite particles that are evenly incorporated into the fabric. When in contact with flames or a flash flame, they form a stable, self-extinguishing carbonisation layer that reliably protects the wearer.

Maximum safety with a high level of comfort – proven in the field

Practical field tests with special forces and naval personnel in the Middle East, the Mediterranean and the Pacific prove the performance of the new technology: The combat suits durably withstood the wear and tear from plate carriers, thorns, brambles, and abrasive surfaces without losing function or producing disturbing noises when moving. Especially in hot climates, the comfort advantage over conventional materials was clearly evident at medium to high activity – with many users referring to lower fatigue and thus higher operational readiness.

For more information, please visit: <https://www.goretexprofessional.com/technologies/pyrad-fabrics>

Ends

Gore revolutionised the outerwear industry more than 40 years ago with waterproof, breathable GORE-TEX fabric and continues to be a leading innovator in performance apparel. Gore's products provide comfort and protection in demanding environments and everyday life, allowing wearers to achieve and experience more safely and confidently. From pouring rain hikes to defense operations and firefighting, Gore's deep understanding of consumer and industry needs drives the development of products with significant performance benefits. gore-tex.com and goretexprofessional.com

About Gore

W. L. Gore & Associates is a global materials science company dedicated to transforming industries and improving lives. Since 1958, Gore has solved complex engineering challenges in demanding environments – from outer space to the world's highest peaks to the inner workings of the human body. With more than 13,000 employees and a strong, team-oriented culture, Gore generates annual sales of \$5 billion. www.gore.com

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