Lenzing
Innovative by nature

Press Release

Lenzing Aktiengesellschaft
Werkstraße 2
4860 Lenzing, Austria
www.lenzing.com

E-mail e.mcgeorge@lenzing.com

Lenzing unveils three-tier cellulosic fiber portfolio for next generation protective wear

Ref. e.mcgeorge
Date 14 April 2025

"Wear With Nothing To Hold You Back"

- Lenzing Solutions for Protective Wear unites LENZING™ FR and TENCEL™ Lyocell fibers in the protective wear industry's first integrated cellulosic system – designed to enable inherent, hybrid and FR-finished fabric solutions
- Independent testing demonstrates that protective clothing with LENZING™ FR fibers delivers measurably lower heat stress and supports longer sustained physical performance compared to conventional flame resistant (FR) alternatives[1]
- Portfolio presented at CIOSH Shanghai (7–9 April) and on view at Techtextil Frankfurt (21–24 April); also available on Lenzing Pro (LenzingPro.com)

Lenzing – The Lenzing Group, a leading supplier of regenerated cellulosic fibers for the textile and nonwovens industries, today introduces Lenzing Solutions for Protective Wear. This integrated three-tier portfolio is anchored by LENZING™ FR fibers at the highest protection tier for inherent flame resistance and brings together complementary solutions including TENCEL™ Lyocell fibers, both EU Ecolabel-certified[2] and derived from certified or controlled wood sources[3], within a unified protective wear architecture for the first time. The launch marks the most significant expansion of Lenzing's protective wear business since the company pioneered inherently flame-resistant cellulosic fiber in 1977, and comes as the global personal protective equipment (PPE) market accelerates toward an estimated USD 130 billion by 2033[4].

[1] Physiological performance study: 18 volunteers tested four material combinations (LENZING™ FR/aramid blend, FR-treated cotton, 100% aramid, modacrylic/cotton) at 35°C under standardised work-load protocol. Measured parameters: core body temperature, skin temperature, lactate concentration, heart rate.
[2] EU Ecolabel for textile products (licence no. AT/016/001).
[3] Lenzing procures wood and pulp only from certified or controlled sustainable sources. In its Wood and Pulp Policy, Lenzing is committed to procuring wood and pulp exclusively from non-controversial sources.
[4] Global PPE market projection: Fortune Business Insights, 2025.

Lenzing
Innovative by nature

Press Release

Following the portfolio's Asia-Pacific introduction at CIOSH Shanghai (7–9 April), Kevin Sun, Commercial Manager of FR China team shared, "CIOSH brings together over 90% of the Chinese industry partners for FR. We took this opportunity to engage in many productive exchanges with our partners, enhancing confidence and trust under the complex geopolitical situation. At this event, we debuted our refreshed brand image in China for the first time. Customers generally commented that our new design is clear and elegant, creating a strong visual impact, while the new slogan conveys a strong sense of security."

The full range of Lenzing Solutions for Protective Wear will receive its European and Global showcase at Techtextil Frankfurt (21–24 April) at Hall 12.1 / Stand D33 marking the European premiere of the three-tier concept.

A system designed for the reality of protection

From the firefighter entering a structure to the welder on a production line, no single protective clothing solution can address every risk and hazard. Effective protection requires solutions customized to specific applications and backed by fiber science that addresses not only hazard resistance but physiological comfort, mobility, and heat stress at every protection tier.

Since 1977, LENZING™ FR has been trusted in inherently flame-resistant cellulosic fibers for protective clothing. Today, Lenzing becomes the first cellulosic fiber manufacturer to offer a holistic protective wear concept spanning three distinct solution tiers from a single source. Beyond garments, protective wear serves as a full system designed to let people perform at their best under extreme conditions.

A legacy of innovation, built on trust

This heritage of innovation is further protected through European patent **No. 2473657 B1**, covering innovative high performance FR fiber (LENZING™ FR). This patent claims not only the FR fibers but also their use for the production of a yarn and a fabric representing decades of verified intellectual property in flame-resistant cellulosic fiber technology. In an unwavering pursuit of maintaining the highest product quality standards, Lenzing is committed to safeguarding these patent rights against any potential infringements. This dedication not only benefits Lenzing but also plays an important role in supporting all partners by preserving and strengthening their respective market positions.

Inherent protection: LENZING™ FR fibers, blended with aramid, deliver inherent flame resistance built into the fiber itself. The protection does not diminish over time or with washing, removing the need for wash-cycle tracking in garment fleet management. Produced using Lenzing's Modal fiber process, LENZING™ FR fibers achieve

over 70 percent higher wet tenacity than conventional FR viscose[5], and are commonly specified for FR protective clothing that meets ISO[6] standards – safe even for sensitive skin[7].

Hybrid protection: TENCEL™ Lyocell – A100 fibers, blended with modacrylic, bring comfort science and resource efficiency[8] to flame-resistant textiles. The resulting FR blends come with a non-fibrillating surface and high-visibility color capability.

FR-finished protection: TENCEL™ Lyocell Standard fibers with FR finishing technology offer reliable, cost-effective basic protection for steel, welding, and metal industry applications, with significantly lower water consumption per kilogram of fiber compared to conventional cotton[8]. FR finishing partners are selected in alignment with Lenzing's commitment to responsible production[8].

The inherent tier, enabled by LENZING™ FR fibers, addresses the highest-risk environments including structural firefighting, military operations, and electrical utilities. Hybrid solutions serve oil and gas, industrial and high-visibility applications. FR-finished protection is engineered for heavy metal, steel and welding operations where cost-efficiency is critical.

Performance that keeps people working safely

Independent physiological testing at 35°C has demonstrated that protective clothing incorporating LENZING™ FR fibers in blends with aramid recorded a 29 percent lower increase in core body temperature than FR-treated cotton (0.75°C vs 1.05°C), outperforming 100 percent aramid (1.05°C) and modacrylic-cotton blends (1.1°C). Test subjects wearing garments with more than 50 percent LENZING™ FR fiber content sustained physical performance longer at defined exercise intensity levels[1]. With the right fiber, protection is elevated with confidence to perform without hesitation.

Dope-dyed LENZING™ FR fibers eliminate additional dyeing processes, enabling up to 50 percent reductions in energy and water use and up to 60 percent lower carbon footprint compared to conventional dyeing[9].

---

[5] Wet tenacity: LENZING™ FR 14.5 cN/tex vs conventional FR viscose 8.5 cN/tex (wet). Source: Lenzing product data.
[6] LENZING™ FR and TENCEL™ fiber production is certified under leading international standards: ISO 9001:2015 (Quality management), ISO 14001:2015 (Environmental management), and ISO 45001:2018 (Occupational health & safety).
[7] LENZING™ FR and TENCEL™ fibers have been certified as harmless to human health, having passed tests for numerous regulated and nonregulated harmful substances under OEKO-TEX® STANDARD 100.
[8] LENZING™ Lyocell and Modal fibers are made with at least 50 percent less carbon emissions and water consumption, compared to generic (unbranded) lyocell and modal. The results were calculated according to LCA standards (ISO 14040/44) and are made available via the Higg Materials Sustainability Index (MSI) v3.11 (November 2025).
[9] Results based on "Terinte et al., 2014: Terinte, N., Manda, B.M.K., Taylor, J., Schuster, K.C., and Patel, M. (2014). Environmental assessment of coloured fabrics and opportunities for value creation: spin-dyeing versus conventional dyeing. Journal of Cleaner Production, Vol. 72: 127–138."; Textile processing steps being similar for Modal and Viscose, therefore savings are based on calculations of fabric production and dyeing via jet dyeing excl. fiber impact.

Lenzing
Innovative by nature

Press Release

“For too long, the protective wear industry has relied on a one-size-fits-all fiber approach, yet a structural firefighter and a welding technician face fundamentally different risks,” Alexander Gstettner, Global Commercial Director, FR fibers at Lenzing. “With PFAS regulations accelerating and workers operating in increasingly demanding thermal environments, we see a clear need for a more structured approach. Lenzing Solutions for Protective Wear brings together nearly five decades of flame resistance expertise with three distinct cellulosic fiber tiers; each proven in its category, all backed by credentials[2,3,6,7,8] and established trust in the industry.”

Lenzing Solutions for Protective Wear will be presented at the Lenzing Hall 12.1 / Stand D33 at Techtextil Frankfurt, 21–24 April 2026. For product information, technical datasheets, fiber samples, and application support, visit the booth or Lenzing Pro (LenzingPro.com).

Images related to the announcement can be downloaded from here.

Lenzing Solutions for Protective Wear at a glance:

	Inherent	**Hybrid**	**FR Finished**
Fiber	LENZING™ FR	TENCEL™ Lyocell – A100	TENCEL™ Lyocell Standard
Blending partner	Aramid	Modacrylic	FR finishing technology
FR mechanism	Built into fiber; permanent	Blend with FR partner	Chemical surface treatment
Role in the system	Fire science: permanent protection	Comfort science: sustainable cotton alternative	Accessible protection: cost-effective base
Key applications	Firefighting, military, police, motorsports, electric utilities	Oil & gas, utilities, general industry, hi-vis	Steel, welding, light/heavy metal
Production	Modal process; 80% lower GHG vs generic modal[8]	Closed-loop; >99% solvent recovery[8]	Closed-loop; >99% solvent recovery[8]
Certifications	OEKO-TEX® Std 100 Class 1; EU Ecolabel[2]; FSC®/PEFC[10]	EU Ecolabel[2]; FSC®/PEFC[10]; USDA Biobased	EU Ecolabel[2]; FSC®/PEFC[10]; USDA Biobased

Heritage: Inherently flame-resistant cellulosic fibers since 1977

Lenzing
Innovative by nature

Press Release

Full credentials[10]**:** CDP Triple "A" – 4th consecutive year, one of only 23 companies worldwide (2025); EcoVadis Platinum (top 1%); Canopy Dark Green Shirt; SBTi; USDA Certified Biobased (100%); ZDHC; ISO 9001/14001/45001

Traceability: Lenzing Fiber Identification technology for supply chain authenticity

For more information, please contact:

Eva McGeorge

Senior Global Director Marketing & Branding, Commercial Textiles

Email: e.mcgeorge@lenzing.com

About the Lenzing Group

The Lenzing Group stands for the responsible production of specialty and premium fibers based on regenerated cellulose. As an innovation leader, Lenzing is a partner of global textile and nonwoven manufacturers and drives many new technological developments.

The Lenzing Group's high-quality fibers are the raw material for a wide range of textile applications – ranging from functional, comfortable, and fashionable clothing through to durable and sustainable home textiles. TÜV-certified biodegradable and compostable Lenzing fibers are also ideal for demanding use in everyday hygiene applications.

The Lenzing Group's business model extends far beyond that of a traditional fiber producer. Together with its customers and partners, Lenzing develops innovative products along the value chain, adding value for consumers. The Lenzing Group strives for efficient utilization and processing of all raw materials and offers solutions for the transition of the textile industry from the current linear economic system to a circular economy.

In order to align its commitment to limiting man-made climate change with the goals of the Paris Agreement, Lenzing has set a clear, science-based climate target, which was verified by Science-based Target Initiative (SBTi), for significant reduction of absolute greenhouse gas emissions (Scopes 1, 2, and 3) by 2030 and a net-zero target by 2050.

.

Key Facts & Figures Lenzing Group 2025

Revenue: EUR 2.60 bn

Nominal capacity (fibers): 1,110,000 tonnes

Employees (full-time equivalents): 7,738

[10] https://www.lenzing.com/people-planet/certificates-evaluations