March 2024

Turnout Gear Materials Update

We would like to clarify some important facts regarding the array of materials we use in our turnout gear, specifically concerning PFAS (Per- and polyfluoroalkyl substances), which has been an ongoing topic of interest.

01 OUTER SHELL AND THERMAL LINERS

Beginning in 2021, all outer shell and thermal liner fabrics we use, provided by Safety Components, Tencate, and Milliken, including IsoDri® thermal liner composites, started to transition to durable water repellent finishes made with non-fluorinated polymers. This means our turnout gear manufactured since the end of 2021 features these non-fluorinated finishes, free from intentionally added PFAS materials. Because the transition wasn't fully complete until the end of that year, turnouts with a manufacture date of 2021 may not have a fully transitioned composite.

02 LEGACY MOISTURE BARRIERS

Legacy moisture barrier materials available from WL Gore and Stedfast do contain ePTFE Film, a polymer used in many industrial and medical applications, which falls under the broad PFAS definition.

For information about the safety, breathabilty and durability of ePTFE made by WL Gore, scan the QR code.

03 NEW NON-FLUORINATED MOISTURE BARRIER ALTERNATIVES

Moisture barrier technology is rapidly evolving and LION is working with suppliers to introduce new barrier materials without intentionally added PFAS, including Stedair Clear*, a urethane-based material. Because Clear is in the early stages of introduction lead-times may be longer than other materials. Other barriers may be introduced later in 2024 and 2025.

To learn more about Stedfast, visit stedfast.com

04 HEALTH AND SAFETY CONSIDERATIONS

Non-fluorinated finishes currently have minimal chemical repellency, so it's even more crucial for departments to implement comprehensive exposure reduction, cleaning, and decontamination programs compliant with NFPA 1851 procedures to mitigate any increase in toxic particulate, flammability, and chemical contamination in the new gear.

05 ENVIRONMENTAL TRACE PFAS

It's also important to remember that trace amounts of PFAS exist in the environment, which means background levels could potentially be present in any material. The upcoming revised NFPA standard will address "PFAS-free" claims and set limits on restricted substances in firefighter PPE.

** We encourage interested fire departments to wear-test all new products before purchase to evaluate breathability, durability, and other performance criteria required by each department's risk assessment.*

LION®

LION is committed to monitoring the latest science, evaluating new materials, and ensuring our products continue to meet the highest standards of safety and performance.