



At Milliken, we do our best work when we use our strengths as a diversified manufacturer to make a positive impact on the world. By helping to protect those who protect others, Milliken ResQ's work is an example of this belief as we develop fabrics that better equip firefighters and first responders. Drawing on our extensive flame resistant (FR) textiles knowledge, we hope to mitigate and reduce some of the risks firefighters and first responders face on the job. We sat down with John Ashley, senior development engineer, and Jeff Morris, senior vice president of Uniform and Protective Fabrics for Milliken & Company, to discover more about Milliken's dedication to the fire service.

Milliken ResQ: Why did Milliken decide to enter the fire service industry?

Jeff Morris: Supporting first responders has always been important to Milliken. We want to provide firefighters with the most advanced fabric technologies available, so our team actively seeks to discover state-of-the-art solutions that address firefighter safety and comfort. We understand the commitment firefighters have to their jobs and the communities they serve, and Milliken mirrors that dedication by developing protective fabrics to better protect first responders.

Many of our associates keenly understand the science of a flame and heat protection technologies. Applying this knowledge to benefit the fire service has been pivotal to our success in developing unique and effective textiles.

John Ashley: Milliken has provided FR textiles to the armed forces for many years and has a strong history and knowledge of the FR market. The transition into fire service was a natural progression for us because we had the experience and access to technologies to make us successful. Acquiring Springfield in 2015 gave Milliken an advantage entering the fire service industry because the company had a strong presence in the field. This acquisition allowed us to expand our reach to better equip the fire service.

ResQ: What is involved in the process of researching, developing, and implementing new fabric technologies for first responders?

JM: We actively incorporate end-user suggestions to design an effective and comfortable fabric. Additionally, we invite firefighters to round table discussions to hear what they want in their gear and what could be improved. Having these honest discussions helps us better understand what firefighters need and, in turn, helps us develop cutting-edge technologies that will help firefighters perform better in their day-to-day tasks.

JA: Our sales associates visit end users and manufacturers to gain insight into how the gear is performing. We learn firefighters' true needs so we can properly address them. Through these conversations, we found that firefighters want more comfortable, lighter gear, and better protection against heat stress, so that is what we are actively working to achieve.

ResQ: How important is third-party testing when evaluating a fabric's FR performance, and what is the process like?

JA: All FR fabrics require third-party verification to determine if they meet the minimum NFPA standards. In addition to meeting or exceeding these industry requirements, we ask fire departments to perform wear trials and provide feedback. Hearing directly from firefighters is critical in developing the best possible technologies to protect them against the hazards they face. With this real-world feedback, we better understand what the industry needs and, subsequently, how our technologies can meet or exceed these needs.

ResQ: What makes Milliken ResQ fabrics perform better in the field?

JA: We designed an outer shell specifically for a customer which has gained many accolades in the market. The goal of this product was to increase the total heat loss (THL) of the garment without compromising the thermal protection and durability of the gear. Another notable feature is the increase of flexibility in the fabric, which allows the firefighter to move easily. The increased THL and flexibility puts less stress on the body to move, which helps reduce the likelihood of heat stress.

We also look at future needs when applying or developing our technologies. Because Milliken has a dedicated research and development team, we are able to think outside of the box when envisioning new technology. Additionally, our extensive background in secondary and military protective fabrics has given us a leg up in developing textiles for the fire service.

ResQ: What does the future hold for turnout gear fabrics?

JM: The fabrics of tomorrow will need to be environmentally friendly and provide firefighters with the best protection suited for the conditions they are exposed to. At Milliken, we assess the environmental impacts of each fabric we create to analyze the life cycle. We are working to lower our environmental impact through thoughtful innovations and environmentally focused goals.

JA: In the future, I would like to see the three individual layers of turnout gear combined in a way that creates synergy to better protect firefighters and provide them with additional benefits.

Incorporating wear trials and feedback directly into our fabric innovations helps us better protect those who protect us. It is an honor to work alongside the fire service industry to develop the most effective and the most user-friendly protective fabrics in the market.

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