

Proven Under Fire:

FiberTite Saves a Customer Hundreds of Thousands in Damages After a Neighboring Blaze

CASE STUDY PROFILE:

CLIENT:

Prolec® GE Waukesha

LOCATION:

Goldsboro, North Carolina

PRODUCT:

FiberTite® 45-mil roofing membrane

THE BACKGROUND

Prolec® GE Waukesha is a prominent power transformer manufacturer supporting critical electrical infrastructure. When a large section of its 171,500-square-foot facility in Goldsboro, North Carolina, needed roofing, the facility team selected Seaman Corporation's FiberTite® 45-mil roofing membrane for its demonstrated high performance. Another section of the roof had been covered three years prior with a thermoplastic polyolefin (TPO) membrane.

The differences between those two roof membranes would be tested in a way no facility manager could have foreseen: A massive fire outbreak at a nearby salvage yard posed a risk of major damage to the Prolec GE building.

THE INCIDENT

On the evening of Feb. 11, 2023, a fire broke out just down the street from the Prolec GE facility at an industrial salvage yard storing used railroad ties destined for repurposing in landscaping applications. The site housed thousands of wooden ties across more than 20 acres, neatly organized into close, towering stacks. As is typical, the railroad ties were coated with creosote to preserve the wood. Once the fire started, this flammable coating accelerated the blaze.

Fire spread throughout the salvage yard overnight, and as the flames intensified, embers launched into the air, becoming a threat to neighboring properties. Brad Moore, a volunteer firefighter who also serves as facility manager at Prolec GE Waukesha, was one of the first to learn of the fire—and the fact that it was a rapidly growing threat. As a first responder, he was on scene right away, and he soon saw that his own facility was in grave danger.

"The fire actually created its own updraft, to the point that the pine trees were scorched, and broken limbs and sparks and ashes fell over here on the roof," Brad said.

As the night progressed, embers rained down on the Prolec GE Waukesha facility—where 40 to 50 people were working at the time—making contact with both the FiberTite and TPO roof sections. After only a few minutes, it was obvious one roof system was performing much better.

THE RISKS

In addition to worker safety, the stakes for property damage were particularly high. The FiberTite roof section protected the facility's critical winding department, where copper coils are hand-wound and submerged in high-grade mineral oil to form the core of their transformers. The fabrication shop, which houses CNC equipment and expensive machinery and tools, was positioned under the TPO section of roof.

Roof damage in either section would be detrimental to the business. Not only is fire itself a risk, but destruction of any part of the roof system can result in leaks. Moisture intrusion of any kind could result in product contamination, leading to downtime and hundreds of thousands of dollars in losses.



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Brad Moore

Facility Manager, Prolec GE Waukesha

THE AFTERMATH (AND A CLOSE CALL)

Once smoke was noticed by the workers at the Prolec GE Waukesha building, some of the emergency units responding to the blaze at the salvage yard redirected their focus to this now endangered facility. The firefighters acted quickly to douse any flames on the roof of the Prolec GE building. Brad was especially involved, both as a firefighter and as the person responsible for ensuring the building's security.

While the FiberTite section of the roof was resisting the fire's attack, the TPO section was not; it had developed many holes that burned completely through the membrane. "It did ignite," Brad said. "It was only by the grace of God that the fire department was already here to put it out."

Once the fire was extinguished, Brad counted 160 burn spots in the TPO membrane. These burn holes would take a toll beyond just compromising the roof. A heavy overnight rain stopped more embers from harming the roof, but those holes immediately created leaks, putting the facility's operational security at risk.

The story was very different on the FiberTite roof section, which was completely intact following the fire. The 20 to 30 soot marks failed to penetrate the membrane, thanks to the membrane's inherent fire resistance with self-extinguishing properties. The FiberTite membrane prevented water from breaching the interior, and the facility continued running without interruption. And the membrane? FiberTite service technicians completed a final inspection and issued the full roof system warranty for continued assurance of future performance.

"If water had leaked into the winding department, it would've been catastrophic," Brad said. "The expense of the copper, the time it takes to wind each coil, the delays—it could have easily cost hundreds of thousands of dollars in damages."

THE LESSON (AND A DECISION)

Following the fire, Brad made the decision to replace the TPO roof section on Prolec GE Waukesha's building with FiberTite. "I had already tested the FiberTite material myself before we chose it and was impressed with the results. When I saw what FiberTite could do in real life, and the confidence the tech team had in the product even after the fire, I knew this was the right decision," Brad said.

Justin Harris, project manager at Curtis Construction, who installed the FiberTite membrane at Prolec GE, noted Brad's insistence on quality and performance in roofing material. "When we first met Brad, the value he placed on quality was very apparent," he said. "That, along with some other features of the facility, led us to introduce him to FiberTite. Amazingly,



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Patrick Lawrence

Branch Manager, QXO (FiberTite representative)

the payoff of his decision to go with this product came much sooner than expected with the fire incident. We are glad this event wasn't more catastrophic and that we could be a part of helping put things back together."

Patrick Lawrence, branch manager for FiberTite representative QXO, who managed the sale and installation, added, "The fire and the damage it caused could have been an opportunity for other manufacturers to deny the warranty coverage or push for replacement. But we knew our product. And we stood behind it."

Looking ahead, Prolec GE Waukesha is considering a facility expansion to support business growth, and FiberTite will be Brad's first choice for roofing. The membrane has proven its worth not only in performance, but also in durability, chemical resistance and reliability under real-world stress.

"I chose FiberTite initially for its proven performance—it was going on the part of the roof where we have the most HVAC equipment and the harshest chemical cleaning," Brad said. "I was looking for something that could handle the wear and the chemicals. This was it, and it has certainly proven its ability to perform."

THE FINAL TAKEAWAYS



FiberTite resisted the spread of flames, protecting critical operations by stopping embers from penetrating.



The TPO membrane failed, requiring emergency patching, insurance claims and full roof replacement.



FiberTite maintained warranty coverage despite fire exposure and stood behind its product during post-incident inspections.



As a result of this event, Prolec GE Waukesha installed more FiberTite membrane on its Goldsboro, North Carolina, plant and plans to continue using it for future roofing needs.



THE CONCLUSION

While risk mitigation is top of mind for any operation and facility, sometimes unanticipated danger comes from next door. For Prolec GE Waukesha, FiberTite delivered the protection they never planned on needing, but were glad to have. That's more than just durability you can count on. That's performance, proven under fire.



Discover the FiberTite advantage.

Get in touch to enhance the protection and efficiency of your next project with long-lasting, high-performance roof systems.

