5 THINGS YOU NEED TO KNOW ABOUT **TECGEN71** OUTER SHELL

1 What is TECGEN71?

TECGEN71 is a rip twill 6.5 oz/yd² outer shell that is constructed of 60/40 Kevlar®/Nomex® on the face of the fabric, and a carbon-based TECGEN® fiber on the inside sold exclusively by Fire-Dex.

While positioned as a lighter weight option, TECGEN71 is in fact no lighter weight than other proven outer shells used in the fire service today.

TECGEN71 is simply offered with light thermal liners and moisture barriers. The same result can be achieved by using those thermal liners and moisture barriers with existing lightweight outer shells, containing proven fibers like PBI, Kevlar® and Nomex®...but without the flaws of the carbon-based TECGEN® fiber.

2 The most alarming compromise in choosing TECGEN71 is the **lack of durability and the rapid strength loss.**

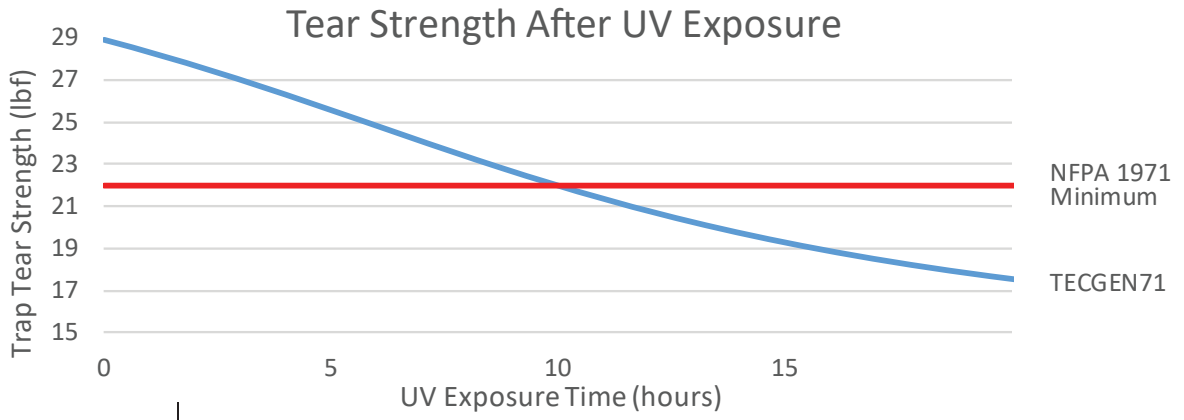
3 Test results show that **after only 20 hours** of exposure to UV, TECGEN71 tear strength falls to **17 lb. That's below the minimum NFPA 1971 requirement of 22lb**

On its website, Fire-Dex emphasizes the importance of durability and tear strength testing for all outer shells. It states:

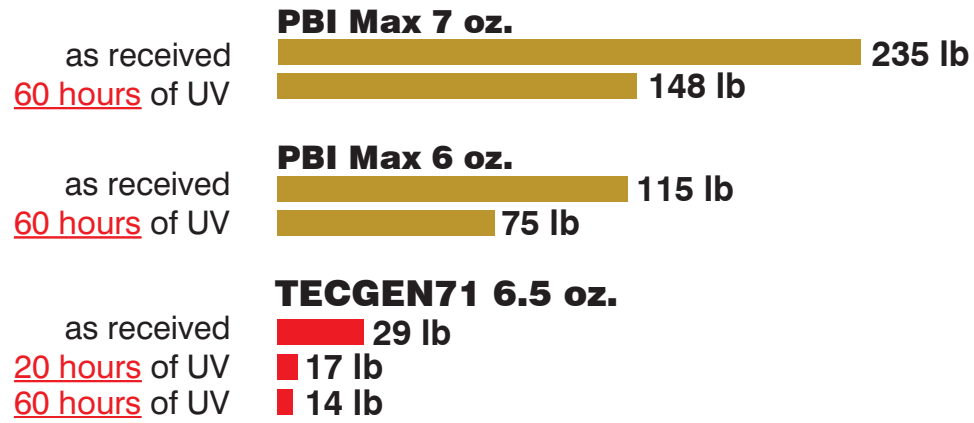
> "Wearing fabric that tests poorly can lead to a shorter life-span for turnout gear, other garment failures and increased risk of burns."

URL: https://www.firedex.com/product/tecgen71/

While Fire-Dex recognizes the importance of exceeding the NFPA 1971 minimum requirement of 22 lb of tear strength, the test data results for TECGEN71 tell a different story.



4 How does PBI Max compare?

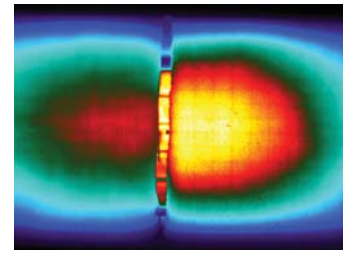


5 The high thermal conductivity of TECGEN71 can increase heat stress.

Another factor to consider when choosing an outer shell is **thermal conductivity**. Highly conductive fibers, like carbon fiber, will increase the rate at which heat is transferred into the gear. TECGEN71 outer shell transfers heat through the garment significantly faster than PBI, thus making the firefighter hotter, faster.

There are many reasons why carbon-based fabrics haven't seen traction in the fire service since first being introduced in the 1990s. While Fire-Dex is focused on heat stress, TECGEN71 falls short of being the answer.

The thermal image below depicts PBI Max and TECGEN71, simultaneously exposed to approximately 0.5 cal/cm²-s of radiant heat for 15 seconds



PBI Max **TECGEN71**

Knowledge Is Power

Product education can make the difference between the right and wrong decision for your protective needs.

PBI® PERFORMANCE PRODUCTS, INC.