

# CROSSTECH® Moisture Barriers

Better manage your heat stress across a  
BROADER RANGE of environments.



## You work in all kinds of conditions...so should your gear!



- Get hydrated
- Stay physically fit
- Wear CROSSTECH® moisture barriers for the range of environmental conditions you encounter



# CROSSTECH® Moisture Barriers



crosstech.com

**Firefighters face many environments that contribute to heat stress, particularly warmer conditions and conditions with radiant heat.**

- When you work a *highway accident on hot asphalt* or vent a *rooftop in the heat of the sun*, these conditions can result in significant heat stress.
- Your body attempts to maintain a normal core temperature, but in conditions in which there is significant heat stress, body core temperature may rise.

**The NFPA 1971 THL test requires only a minimal, relatively mild, condition when evaluating the ability of gear to manage heat stress.**

- This test evaluates composites at 77°F, 65% RH, without sun or other radiant heat. Turnout gear, which performs similarly in these conditions, may perform differently elsewhere. As a result, THL is just one part of the heat stress story.

**How does YOUR gear perform in conditions beyond those of the NFPA 1971 THL test?**



**Did you know... As little as a 0.3°F difference in body core temperature can impact how you feel\*, and an increase of just a couple degrees above normal can raise the risk of heat exhaustion and impaired decision-making?**

\*Umbach, K.H. "A universal description of wear comfort in relation to clothing and textiles used in its construction." AIF 4827 Hohenstein Institute, Germany.

**CROSSTECH® moisture barriers perform better than non-Gore barriers in conditions beyond those of the THL test.**

**CROSSTECH®  
black moisture  
barrier:**

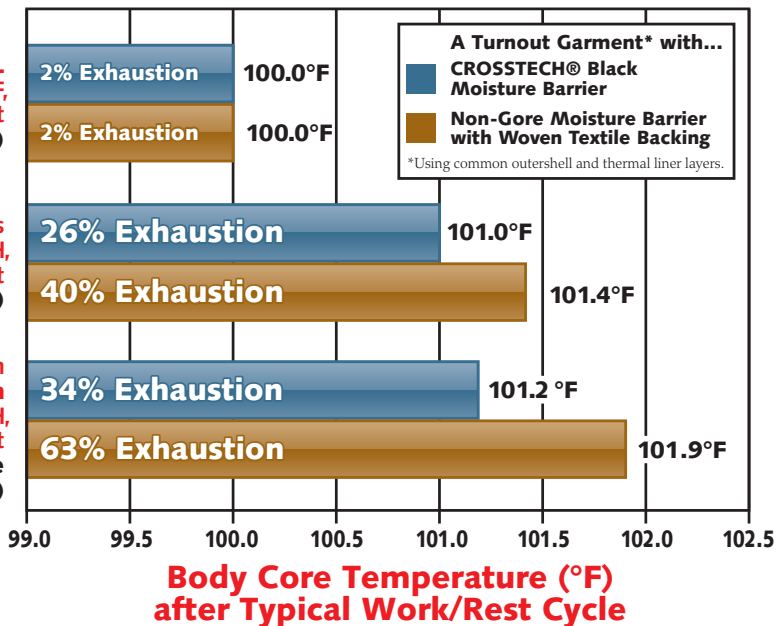
Lower Core  
Temperatures

Reduced Heat  
Exhaustion

**NFPA 1971 THL  
Conditions 77°F,  
65%RH, No Radiant  
(dark office)**

**Hotter Conditions  
95°F, 40%RH,  
No Radiant  
(hot night)**

**THL Condition  
+ Medium Sun  
77°F, 65%RH,  
500W/m<sup>2</sup> Radiant  
(moderate  
sunny day)**



CROSSTECH® moisture barriers enabled lower core temperatures and reduced dropout rates from exhaustion. Even in cases where the THL values are similar, CROSSTECH® moisture barriers outperformed the non-Gore barrier alternative in other conditions.  
Chart based on a combination of proprietary clothing models that incorporate industry-accepted physiological models, and US Military studies.  
 WARNING: No products, including garments, footwear, and gloves, protect completely, even when new; their protective performance will decline with wear, tear, abrasion, and other damage associated with use.

For more than 30 years, Gore, the manufacturer of CROSSTECH® moisture barriers, has built a globally recognized capability in human comfort science and expertise.

By utilizing industry-leading methods, proprietary technologies, and input from end users, Gore has created trusted products that go beyond industry standards to provide the performance firefighters deserve.



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