# GORE® CHEMPAK®

FABRIC



**XRT SUIT** 

# **Respond More Quickly and Stay Engaged Longer**

- Breathable suit that enables longer missions in warm-zone environments
- Outstanding protection in a suit certified to NFPA 1994, Class 3
- Longer garment life with fabric that is washable after use
- Added confidence due to enhanced durability while in use



XRT Suit

**Enhanced Functionality in Chemical and Biological Environments** 

First responders need to remain engaged as long as possible without risking their safety. This translates to a suit that combines comfort and durability with certified protection. Made with GORE® CHEMPAK® selectively permeable fabric — the only breathable fabric that enables a suit to be certified to NFPA 1994 — the Extended Response Team (XRT) suit allows you to be deployed longer and remain confident about the suit's integrity while allowing your body heat to escape.

## **Longer Active Engagement**

Because of its highly breathable barrier that allows your body heat to escape through the fabric in the form of perspiration vapor, the XRT suit enables you to stay actively involved significantly longer than an impermeable suit does. The evaporative resistance test (Ret), included in the 2018 edition of the NFPA 1994 Standard, measures material breathability. This test determines the amount of resistance sweat vapor encounters when passing through a fabric: the lower the resistance value, the more breathable the fabric is. When tested for NFPA 1994 component certification, GORE<sup>®</sup> CHEMPAK<sup>®</sup> selectively permeable fabric measured almost 2.5 times lower than the required certified value.

In addition, Extended Response Team (XRT) suits made with Gore's fabric allow you to deploy faster because the suits are quick-donning with interfaces and closures that don't require chemical taping.

## **Added Confidence**

GORE<sup>®</sup> CHEMPAK<sup>®</sup> Selectively Permeable Fabric gives added confidence about CBRN protection due to its enhanced durability. During a recent extended wear trial, the suit was subjected to four sessions of rigorous physical activities for a total of 24 hours, with laundering between each session. Following the wear trial, the suits and their seams remained intact, and their fabric continued to meet the chemical permeation criteria for NFPA 1994, Class 3 materials. Additionally, accelerated aging testing has shown that GORE<sup>®</sup> CHEMPAK<sup>®</sup> fabric maintains the performance necessary to exceed a 10-year ensemble shelf-life.

## **Certified Protection**

GORE<sup>®</sup> CHEMPAK<sup>®</sup> Selectively Permeable Fabric exceeded the chemical permeation requirements for certification to NFPA 1994 Class 3 as a fabric component. Because it is liquid-proof, air-impermeable, and moisture vapor breathable, this fabric protects against potential exposure to contaminants that are below levels not immediately dangerous to life and health (IDLH). The fabrics are ideal for operations such as those involving toxic industrial chemicals, chemical warfare agents including fourth-generation nerve agents, emerging pharmaceuticals such as fentanyl, and biological hazards:

- Force protection
- Perimeter security
- Decon line operation
- Transfer of incident victims
- Safe escape from contaminated environment
- Counter-terrorism security at public events
- Emergency response to terrorist incidents

#### W. L. Gore & Associates, Inc.

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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. CHEMPAK, GORE and designs are trademarks of W. L. Gore & Associates, Inc. ©2019 W. L. Gore & Associates, Inc.

#### **Barrier Chemical Permeation Performance**

Challenge Chemical	Challenge Level	Endpoint µg/cm²	8 Hours Cumulative Results
Acrolein	40 ppm	6	Pass
Acrylonitrile	40 ppm	6	Pass
Ammonia	40 ppm	6	Pass
Chlorine	40 ppm	6	Pass
Cyanogen Chloride	40 ppm	6	Pass
Dimethyl Sulfate (DMS)	10 g/m²	6	Pass
Hydrogen Cyanide	40 ppm	6	Pass
Mustard (HD)	10 g/m²	4	Pass
Phosgene	40 ppm	6	Pass
Sarin (GB)	10 g/m²	1.25	Pass
Soman (GD)	10 g/m²	1.25	Pass
Tabun (GA)	10 g/m²	1.25	Pass
VX	10 g/m²	*	Pass
Fourth-Generation Nerve Agents (FGA)	10 g/m²	*	Pass

\* Contact Gore for more information



#### The Gore Advantage

For more than 35 years, W. L. Gore & Associates has been a pioneer in developing high-performance barrier fabrics for first responder and military applications. Contact a Gore sales associate today for assistance in selecting the right barrier product for your specific application.



#### PROTECTIVE FABRICS