



PARTICULATE-BLOCKING HOODS

SHIELD YOURSELF FROM CONTAMINANTS.

# TOXIC MICROSCOPIC CARCINOGENIC PARTICLES CAN TRAVEL THROUGH TRADITIONAL KNITTED HOODS.

When you set foot on the scene of a fire, you immediately come in contact with microscopic carcinogenic particles generated by burning materials. While we know that breathing in these cancer-causing particulates is dangerous, studies show that absorbing these toxins through the skin is just as harmful. Unseen and imperceptible, these toxic microscopic particulates can travel through traditional knitted hoods and accumulate on your skin, especially on the highly absorptive areas of the neck, jaw and throat. As a firefighter, you face intense heat and work up a sweat. All this heat opens up skin pores, increasing its ability to absorb toxins. Traditional hoods were designed to protect against heat, not carcinogenic particles. Today's particulate-blocking hoods are a vital investment in your continued health and safety.

# For every 5-degree increase in skin temperature, contamination risk increases by 400%.

Following the lungs, the skin is the body's second largest organ by surface area, and is highly absorptive. Some areas of skin are more permeable than others. These include the face, the angle of the jaw, the neck and throat. Skin's permeability increases with temperature. As you get hot, the pores open up and the absorption capacity of the skin increases. The higher the temperature, the more permeable your skin becomes. For every 5-degree increase in skin temperature, absorption and the risk of contamination increase by 400%1.



# FIREFIGHTER CANCER QUICK FACTS

Research shows that firefighters have higher cancer risks than the general population, and their risks are significantly higher for some specific cancers.

9%

Firefighters have a 9% higher risk of being diagnosed with cancer than the general population.<sup>1</sup>

14%

Firefighters have a 14% higher risk of dying from cancer than the general population.<sup>1</sup>

61%

Cancer has caused 61% of career firefighter line-ofduty deaths since 2002. Heart disease caused 18% of the line-of-duty deaths. <sup>2</sup>

1 Firefighter Cancer Support Network 2 IAFF data from Jan 1, 2002 to March 31, 2017

# NEW INNOTEX® GRAY™ HOOD 25 NANO

MADE WITH DUPONT™ NOMEX® NANO FLEX

#### **NOT MADE WITH PFAS**

#### A Full coverage

DuPont™ Nomex® Nano Flex particulate-blocking barrier – not made with PFAS – throughout the entire hood.

## B Extra-long asymmetric length: 24" front & 22" back

Provides complete chest and shoulder coverage. Ensures your hood stays securely tucked in, preventing particulate entry at the coat-to-neck interface.

#### C Multi-panel design

Ensures a snug fit and proper seal with your SCBA, no matter the head movement, even tilted backward.

## D 1-layer of Trilaminate with Nomex® Nano Flex

The Nomex® Nano Flex Technology is light, thin, and flexible, delivering excellent moisture management and thermal resistance.

## E Heavy-duty ½" elastic sewn into face opening

Ensures a snug fit and proper seal with your SCBA even when you move your head. Stretches for easy donning without ever losing its shape.

#### F Flatlock seams

Stronger yet low profile seams ensure a more comfortable fit. Sewn with spun Nomex thread for optimal quality.





## Not made with PFAS

The hood and its components are not made with PFAS.



## Blocks more than 99.8% of particles

DuPont™ Nomex® Nano Flex particulate barrier blocks more than 99.8% of particles as small as 0.1 to 1.0 microns.



#### Air permeable

Allows clean air to flow through and lets moisture escape efficiently to help reduce the risk of heat stress.



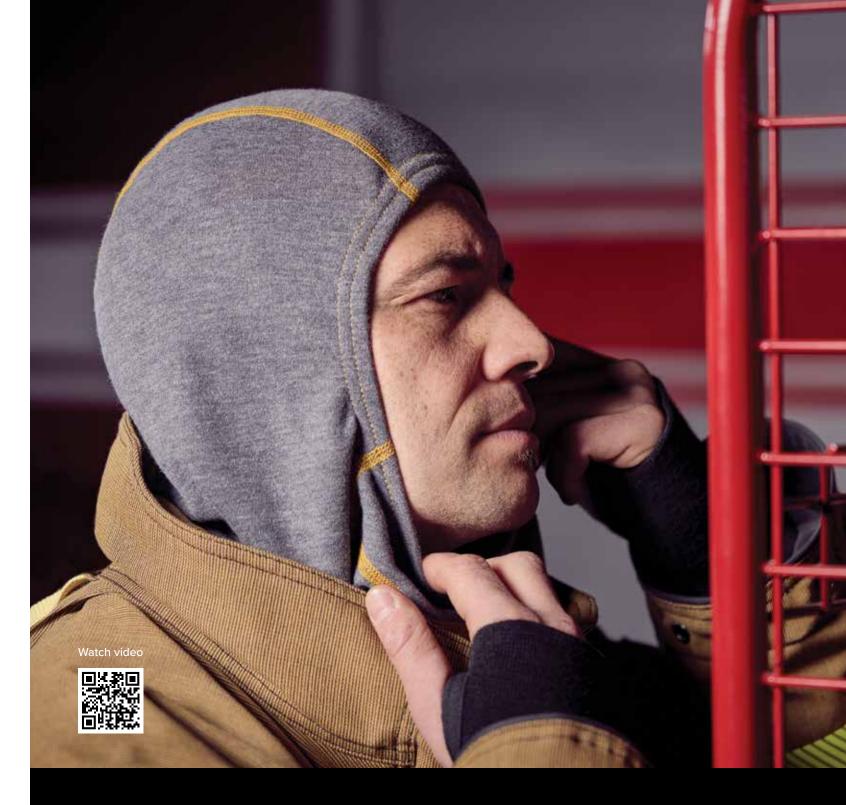
#### Superior comfort

Lightweight , breathable and ergonomicallydesigned to ensure a comfortable fit.



#### Durable

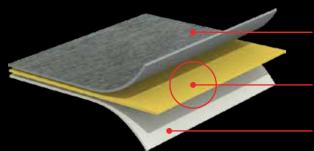
Maintains its particulate-blocking effectiveness even after 250 washes. Face opening retains its snug fit to prevent ingress of harmful particulates.





Our new GRAY™ Hood 25 Nano – **not made** with PFAS – offers complete protection against toxic particulates. Made with DuPont™ Nomex® Nano Flex, this light & flexible 1-layer hood features a nanofiber-based particulate barrier that stops particulates at 99.8%. Its remarkable breathability & high thermal heat loss value ensure unbeatable comfort in any situation.

#### 1-LAYER OF TRILAMINATE WITH NOMEX® NANO FLEX



#### **GREY KNIT**

Nomex®/Kevlar® blend 33% Lenzing 33% Modacrylic 33%

DuPont™ Nomex Nano Flex

WHITE KNIT Nomex® 50% Lenzing 50%

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## INNOTEX® GRAY™ HOODS

MADE WITH STEDAIR® PREVENT

#### A Full coverage

Stedair® Prevent particulate-blocking barrier throughout the entire hood.

#### **B** Extra-long asymmetric length: 24" front & 22" back

Provides complete chest and shoulder coverage. Ensures your hood stays securely tucked in, preventing particulate entry at the coat-to-neck interface.

#### C Multi-panel design

Ensures a snug fit and proper seal with your SCBA, no matter the head movement, even tilted backward.

#### **D** FR viscose liner

Provides a soft, cool feeling on your skin and boasts excellent moisture-wicking properties to keep you drier and more comfortable.

#### E Heavy-duty 1/2" elastic sewn into face opening

Ensures a snug fit and proper seal with your SCBA even when you move your head. Stretches for easy donning without ever losing its shape.

#### F Flatlock seams

Stronger yet low profile seams ensure a more comfortable fit. Sewn with spun Nomex thread for optimal quality.

#### G FR knit

Form-fitting knit allows a comfortable fit that conforms to the contours of your head.





#### **Blocks more** than 99.9% of particles

Stedair® Prevent particulate barrier blocks more than 99.9% of particles as small as 0.1 to 1.0 microns.



#### Air permeable

Allows clean air to flow through and lets moisture escape efficiently to help reduce the risk of heat stress.



### **Superior comfort**

Lightweight and ergonomically-designed to ensure a comfortable fit. Inner multi-filament FR viscose liner provides a soft, cool feeling on your skin and boasts excellent moisture-wicking properties.



#### Quiet

Won't make crackling noises that affect your situational awareness and limit your ability to communicate.



#### **Durable**

Maintains its particulate-blocking effectiveness even after 100 washes. Face opening retains its snug fit to prevent ingress of harmful particulates.



# YOUR CHOICE:

# HIGHER THL OR HIGHER TPP

Because everyone has different needs when it comes to thermal protection and breathability. Choose the GRAY 25 hood for enhanced heat stress control or the **GRAY 35** hood for optimal thermal protection in critical areas.

INNOTEX® GRAY™

HOOD**25 \*THL NANO** 



#### Single metabolic zone design

Effective heat stress relief without compromising thermal protection. Not made with PFAS.

#### 1-layer hood

• ONE layer of trilaminate with Nomex® Nano Flex throughout







#### TPP

THI	479
After 5 washes	24.8
As received	23.0

54% Nomex® blend 46% Nomex® / Lenzing INNOTEX® GRAY™

HOOD**25 •THL** 



#### Single metabolic zone design

Effective heat stress relief without compromising thermal protection.

#### 2-layer hood

- ONE FR knit outer layer
- ONE inner layer: INNOTEX® Trilaminate with STEDAIR® PREVENT throughout



TWO layers



TPP	
As received	22.6
After 5 washes	34.1
THL	427

20% Nomex® | 80% Lenzing

### **TPP**

As received	22.4*
After 5 washes	25.0**
THL	437

20% PBI® I 80% Lenzing

#### INNOTEX® GRAY™





#### **Dual metabolic zone design**

Higher thermal and flashover protection only where you need it most.

#### 3-layer hood

- TWO FR knit outer layer in critical areas
- ONE inner layer: INNOTEX® Trilaminate with STEDAIR® PREVENT throughout



THREE layers

TWO layers



As received	36.7
After 5 washes	47.2
THL	329

20% Nomex® I 80% Lenzing

ГРР	
As received	38.6
After 5 washes	34.8
THL	350

20% PBI® I 80% Lenzing



<sup>\*</sup> Tested at PBI® lab.

# **FABRIC PERFORMANCE**

INNOTEX® GRAY™ HOODS PERFORMANCE VALUES



INNOTEX® GRAY™





HOOD35

			NANO				
		Requirements NFPA 1971 / 2018 edition	54% Nomex® blend 46% Nomex® / Lenzing	20% Nomex® 80% Lenzing	20% PBI 80% Lenzing	20% Nomex® 80% Lenzing	20% PBI 80% Lenzing
PARTICULATE-BLOCKING EFFICIENCY	As received	0.10 mm part. size	99.8%	99.9%	99.6%	99.9%	99.6%
	After 10 washes	≥ 90%	99.7%	99.8%	99.3%	99.8%	99.3%
THERMAL PROTECTIVE PERFORMANCE (TPP)	As received	≥ 20	23.0	22.6	22.4*	36.7	38.6
	After 5 washes	2 <b>2</b> 0	24.8	34.1	25.0**	47.2	34.8
TOTAL HEAT LOSS (THL)	As received	≥ 325 W/m2	479	427	437	329	350
AFTER FLAME (WALES X COURSES / SEC)	As received	<u>≤ 2.0</u>	0.4	0	0	0	0
	After 5 washes	3 2.0	0.4	0	0	0	0
CHAR LENGTH (WALES X COURSES / MM)	As received	<u>≤ 2.0</u>	8 x 7	23 x 18	20 x 28	23 x 18	20 x 28
	After 5 washes		6 x 7	18 x 16	30 x 28	18 x 16	30 x 28
HEAT & THERMAL SHRINKAGE RESISTANCE (%)	As received	≤ 10%	M/L -1.1% XL 0.1%	M/L -0.5% XL -0.3%	M/L -0.8% XL -1.5%	M/L -0.2% XL 0%	M/L 0% XL 0%
	After 5 washes		M/L -0.7% XL -1.0%	M/L -0.5% XL -0.5%	M/L -1.4% XL -1.6%	M/L -0.2% XL -0.3%	M/L 0% XL 0.2%
CLEANING SHRINKAGE RESISTANCE (%)	Finished hood	≥ 5%	M/L 0% XL 0%	M/L -1% XL -1.6%	M/L -1% XL -1.6%	M/L -1% XL -1%	M/L 0% XL -2.0%
FABRIC BURST STRENGTH	Knit layer	 ≥ 225 N		480	345	480	345
	Trilaminate Inner Layer with Stedair® Prevent			546	546	546	546
	Trilaminate layer with DuPont™Nomex® Nano Flex	-	71				

<sup>\*</sup> Tested at PBI® lab.

Fabric Performance Values in accordance with NFPA 1971-2018 edition. Performed by Underwriters Laboratories.

<sup>\*\*</sup> Nominal values.





For a proper fit, INNOTEX® GRAY™ particulate-blocking hoods are available in **2 sizes**. To determine yours, measure the circumference of your head above the ear.

Size	Head circumference (inches)
M / L	Less than 23.5"
XL	23.5"- 25"



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