



10th Bristol Distributors' Conference
May 2017



Firefighting, Cancer and PPE

Can smoke cause cancer in firefighters?

The background features several overlapping, semi-transparent geometric shapes in shades of orange and red, creating a layered, abstract effect. The shapes are primarily triangular and trapezoidal, with some having curved edges. They are positioned in the lower half of the frame, with the top edge of the shapes appearing to curve upwards towards the text.

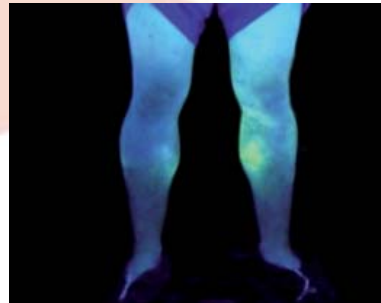
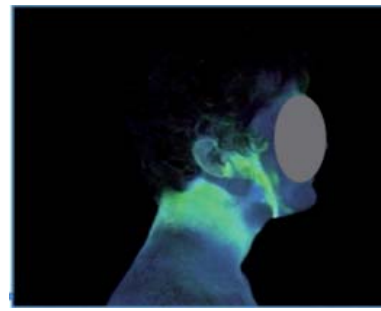
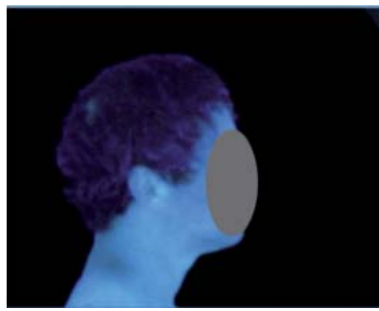
- benzene
- toluene
- ethyl benzene
- xylenes
- styrene
- aliphatics
- phenols
- aldehydes
- ketones
- poly-aromatic hydrocarbons
- dioxins
- particulate matter
- (heavy) metals



Research Triangle Institute

- IAFF Smoke Particle Infiltration Test (January 2015)
- Fluorescent Aerosol Screening Test (FAST)





Worldwide Interest from Fire Departments

- QFES Exposure Study - Australia
- Gothenburg Model - Sweden
- UK Research and Guidance
- IFV Research – The Netherlands
- NBMF Guidance Handbook – Norway
- US Research and Guidance

PPE solutions from Bristol...

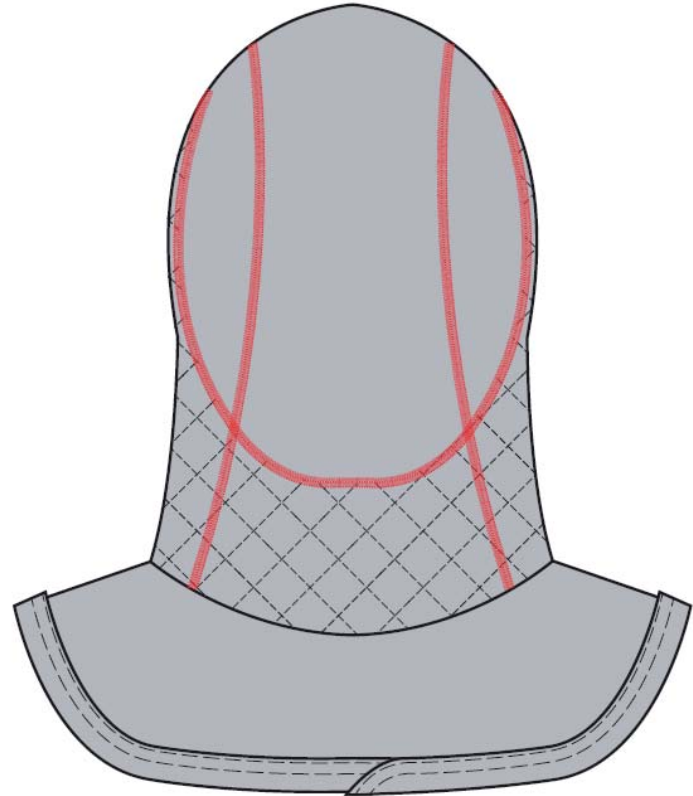
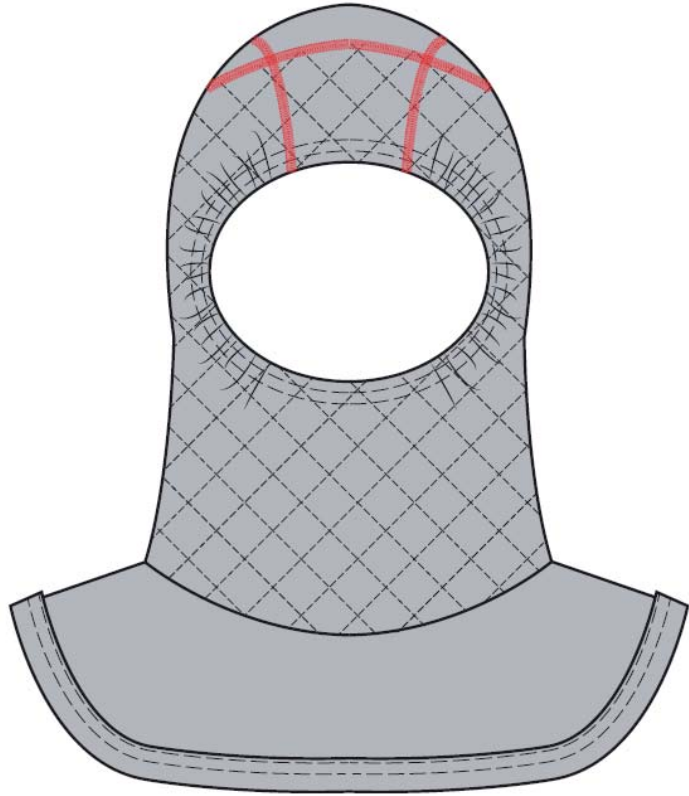
The background features a white diagonal line running from the top right towards the bottom left. Below this line, there are three overlapping, semi-transparent geometric shapes in shades of orange and red, creating a layered, abstract effect.



- **Particulate Protection Hood**

- Nomex / Kevlar / Viscose Knit

- Nomex NanoFlex Particulate Barrier



Filtration Efficiency

Standard Bristol Hood 48.8%

Particulate Protection Hood 99.8%

[TSI 3160 air filtration at 1 cm/S velocity 0.1 – 0.8 micron salt aerosol]

Nomex Nano in garments launched at Intersec, Dubai

- Nomex 360, 170gsm
- Gore Crosstech barrier, 168gsm
- Glide Ice lining, 240gsm
 - Nomex Nano particulate barrier

Particulate Protection Concept

1. Prevent particulates contaminating the firefighter
2. Remove and isolate contaminated PPE at the incident
3. Decontaminate PPE

- Particulate Protection Concept



- Outer Garment:
Nomex Titan laminated 330g

- Inner Garment:
Aramid Viscose / IsoAir Felt 310g





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