



Flexzorb™



Flexzorb™

CBRN protection



Flexzorb™ CBRN protective textile selection

Flexzorb CBRN protection				
Properties Products		Activated carbon weight (g/m²)	Stretchability	Air permeability (m³ / m² per sec) ¹
FM30	(K)	110	√	75
FM50	(K)	130	√	75
FM10	(W)	120		100

Flexzorb knitted textile ('K' above) is stretchable and well suited to applications demanding high freedom of movement, while Flexzorb woven textile ('W') offers higher air permeability, especially suitable for warmer climates.

¹ cubic metres of air per square metre of cloth at 10mm wg pressure.



Respiratory Protection Equipment (RPE)

We are also market leaders in life-saving activated carbon technology for respirators, having provided military and civil RPE solutions since 1942.



Innovation Hub

In our innovation hub, based within our UK facility, we continually research and develop new technical solutions to meet our customers' changing requirements.



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For further information regarding Flexzorb™ CBRN protection, please contact Chemviron:

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Chemviron is the European operation of Calgon Carbon

Frontline effectiveness with comfort

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Flexzorb™ - CBRN protection of global choice

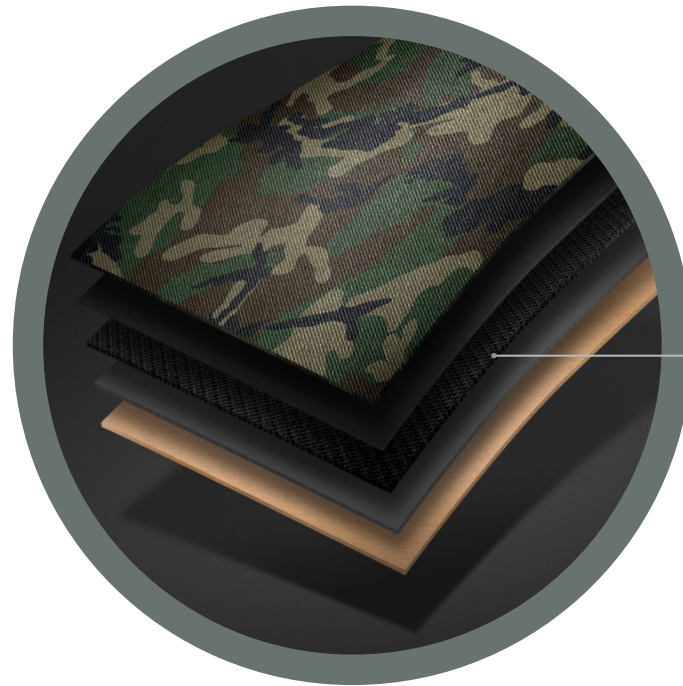
Flexzorb™ is the world's leading superior 100% activated carbon cloth (ACC). A vital protective layer against CBRN substances in personal protective equipment (PPE), Flexzorb is deployed by defence and security forces worldwide.

Operational effectiveness in today's harsh, hostile and potentially toxic environments demands PPE that is lightweight and comfortable to wear, enabling users to operate safely and efficiently.

Lightweight, flexible and breathable, Flexzorb forms a highly adsorbent protective barrier against CBRN agents. It also greatly reduces the physiological burden on the wearer when compared with other heavier forms of protective material – especially important in warmer climates.



Flexzorb™ - CBRN adsorption process



How Flexzorb works

- 1 – CBRN agents trapped. Van der Waals forces draw and trap gas, vapour and liquid molecules on Flexzorb's surface.
- 2 – Air permeability. Breathable textile enhances effectiveness and comfort.
- 3 – Low burden. Lightweight Flexzorb 100% activated carbon cloth layer keeps garment weight low.

The most adsorptive material known to science, Flexzorb uses van der Waals forces to draw gas, vapour and liquid molecules onto its microporous surface and trap them there.

The textile's very high adsorption capacity – just 1g has a surface area of up to 1200m² - allows longer missions in CBRN contaminated environments. Moreover, air permeability allows sweat to escape and increases ventilation for added comfort and effectiveness.

Flexible options

Flexzorb can also be treated for added protection against liquid agent, and to stop sweat affecting performance. Laminate composites are available for specific applications.



Flexzorb™ - PPE applications

Flexzorb is available in a range of configurations for different CBRN protection applications and environments. Versions are available with high stretchability for freedom of movement, added liquid repellency, or increased air permeability for warmer climates.

Integrated CBRN protection in:

- Combat suits
- Undergarments
- Overgarments
- Escape masks
- Gloves
- Socks

First responder CBRN protection in:

- CBRN protection suits
- Escape masks
- Gloves



Other Flexzorb™ defence applications

Flexzorb is also available for the following applications:

- CBRN filtration media
- Decontamination wipes
- Medical countermeasures
- Missile decoy media