Flexzorb®

Medical

Flexzorb® Activated Carbon Cloth for the **Medical Sector**

Flexzorb®. Antimicrobial. Anti-Viral. Adsorptive.

Flexzorb® is widely used by many of the world's leading medical device companies, making us the leading provider of activated carbon cloth for medical applications.

Proven by UK Health Protection Agency tests to be both antiviral and virucidal, Flexzorb is used in a range of medical applications and now with additional BFE and VFE testing by Nelson Labs®:

- **Wound care**, including antimicrobial, anti-odour dressings and NPWT filters
- **Ostomy filters**, for odour management
- **Medical devices**, including drug delivery and adsorption
- **Anti-Viral Respiratory Face Masks**.

The Flexzorb® story

Flexzorb® has its origins in the first activated carbon cloth (ACC), developed in the 1970s. It was initially used - and still is to this day - as a protective layer in military clothing and masks against chemical, biological, radioactive and nuclear (CBRN) agents.

Today, Flexzorb is the world's leading superior 100% activated carbon cloth, used globally in a wide range of applications by defence, medical and industrial sectors. These range from antimicrobial, anti-odour wound dressings to purification filters, among many others.

Flexzorb acts as an extremely effective high-purity filter, separation method, an antimicrobial, or a protective layer.

Consisting purely of activated carbon, Flexzorb adsorbs more quickly and effectively than other, carbon-loaded materials, which contain less activated carbon.

Customised to your needs

Flexzorb is available in woven and knitted formats, which have different attributes appropriate to specific applications:

- **Flexzorb knitted cloth** is a stretchable fabric which does not shed or fray, making it useful for applications including wound dressings.

- **Flexzorb woven cloth** is used in applications requiring air permeability, for example, in ostomy bag filters.

Flexzorb can also be:

- impregnated with various chemistries for added sensitivity to adsorbing inorganic molecules
- laminated to custom backing textiles and films in controlled environment conditions
- produced in pre-cut shapes and different widths
- produced as sealed, pouched sterile dressings.

Key to its very high adsorption* capacity and rapid adsorption speed are:

- **Electrostatic forces** within Flexzorb. These adsorb* large volumes of molecules from various gases, liquids and other environments including clinical wounds.
- **A highly microporous structure.** This means that Flexzorb has a very large surface area. To put this in perspective, just 1g of Flexzorb has a surface area of 1200m^2 - around half the size of a soccer pitch.

*Adsorption is the process of attracting molecules on to a surface, rather than into something. It is analogous to iron filings being attracted on to a magnet.

Flexzorb® Medical Applications

Wound care

Flexzorb® activated carbon cloth is highly effective for wound care applications, whether as an odour-reducing, antimicrobial component in wound dressings, or in other wound care products.

Wound dressings

In wound dressings, Flexzorb offers

- wound odour management, by adsorbing odour molecules and combating odour causing microbes
- antimicrobial properties which contribute to wound healing.

We produce and supply Flexzorb in a variety of sizes and specifications. Additionally, we can manufacture entire wound dressings containing Flexzorb, including procedures such as pouching, sterilisation and labelling.

NWPT devices

In Negative Wound Therapy (NWTP) devices, Flexzorb is used for wound odour management in the part of the device where wound exudate is collected.

Anti-Viral Respiratory Face Masks

In combination with particulate filter media, Flexzorb has been tested by Nelson Labs® for Bacterial Filtration Efficiency (BFE) and Viral Filtration Efficiency (VFE) and the composite has been shown to give 99% and 98% protection in enhanced challenge exposure.

Ostomy filters

Flexzorb® is used in the manufacture of filters for vented ostomy bags, where its performance-to-size ratio comes into its own.

For users of colostomy or ileostomy devices, comfort and discretion are very important. Flexzorb helps improve the quality of life of users by:

- effectively removing odour
- controlling gas release, preventing release that is too slow ('ballooning') or too fast ('pancaking')
- reducing stress and embarrassment.

Other medical device applications

Its adsorption, conductivity and odour management capabilities make Flexzorb suitable for other medical device applications. Examples include odour-controlling medical underwear, spray medication disposal pouches and drug delivery devices. We welcome opportunities to discuss potential new product developments.

About Chemviron Cloth Division

Flexzorb® is produced in the UK by Chemviron Cloth Division, the world's leading manufacturer of 100% activated carbon cloth. Chemviron is the European operation of Calgon Carbon, the world leader in the production and development of activated carbon in granular and cloth forms. At our Innovation Hub, we continually research and develop new attributes of Flexzorb for ever-widening applications.

Contact us

To find out more about Flexzorb or to discuss your applications, please contact us and we will be happy to help.

Tel: +44 (0) 191 584 6962 Fax: +44 (0) 191 584 6793
Email: flexzorb.ccc@kuraray.com
Chemviron Cloth Division, Rainton Bridge Industrial Estate, Houghton-le-Spring, Tyne & Wear DH4 5PP, UK

Chemviron is the European operation of Calgon Carbon and Chemviron

ISO 9001 SGS ISO 14001 SGS ISO 13485 SGS CE 1639

www.chemviron.eu
www.flexzorb.com