



ZORFLEX® ACC

100% Activated Woven Carbon Cloth

DESCRIPTION

Activated Carbon Cloth (ACC), originally invented by the British Ministry of Defence for inclusion in chemical warfare suits, has now been developed by Charcoal Cloth International for use in many odour control situations including industrial, medical and domestic applications.

ZORFLEX® ACC has an extremely large surface area (1000-2000m²/g), being predominately microporous. This, combined with the strong electrostatic forces developed within the cloth, enables the cloth to be highly efficient at adsorbing vapours and solvents.

Available in woven and knitted formats, the cloth is also offered in different activities, weights and thickness. The cloth can also be impregnated with chemical treatments to make it more sensitive to adsorption of particular inorganic molecules.

FEATURES

ZORFLEX® ACC's have several properties, which explain their superior performance in a wide range of applications:

- As the material is **100% activated carbon**, the cloth's performance will exceed that of an equivalent weight of a conventional carbon loaded paper, non-woven or foam, due to their lower carbon content.
- The materials flexible textile form offers superior handling in filter and product manufacture and makes lamination or bonding to other materials possible.
- This form of activated carbon cloth exhibits more **rapid reaction and adsorption kinetics** compared with granular activated carbon. Therefore, ZORFLEX® ACC filters will be more effective when short contact time, high airflow speeds or small bed depths are required.
- A greater amount of vapour will be adsorbed by ZORFLEX® ACC compared with the same weight of granular activated carbon. Therefore ZORFLEX® ACC filters will be more effective in high vapour concentrations or where smaller bed depths are required.
- ZORFLEX® ACC's high efficiency and large capacity for adsorption are less adversely affected by preadsorbed moisture than granular activated carbon. Therefore ZORFLEX® ACC filters are more suitable for use in humid environments where their effectiveness will be maintained.

APPLICATIONS

- Oil mist filters in compressed air
- Gas sensor protectors and filters
- Water purification
- Electrodes
- NBC Protective clothing, socks and gloves
- Wound dressings
- Catalyst media

PROPERTIES

SPECIFICATIONS	
Carbon tetrachloride activity, min., %ww	55 - 70
Construction FM30K	Double Jersey
Construction FM50K	Double Jersey

(Please refer to the Sales Specification Sheets, which state the Chemviron Carbon test method used to define the above specifications. Copies are available upon request.)

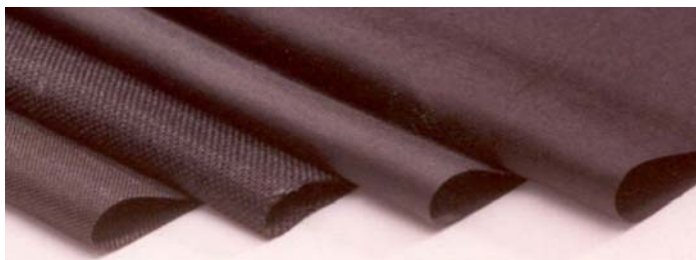
TYPICAL PROPERTIES	FM30K	FM50K
Surface Density, g/m ²	110	130
Tensile strength, Warp (N)	6	7
Ethyl Acetate uptake Min. (% w/w) Max. (% w/w)	30 40	30 40
Air permeability cm ³ /cm ² /sec at 10mm w.g.	75	75
Thickness (mm)	0.4	0.5

DESIGN INFORMATION

The main uses for a knitted carbon cloth are where a degree of permeability is required but not in dynamic situations, unlike the woven products which have a lower pressure drop. The knitted form also offers a stretchable, elastic fabric which is suitable for applications such as NBC clothing, gloves and socks.

PACKAGING

- Polythene & bubble wrap for our log rolls of cloth (each roll in approximately 1m wide x 100 - 200m long).
- Customised packaging can be offered upon request.





Safety Message

Wet activated carbon preferentially removes oxygen from air. In closed or partially closed containers and vessels, oxygen depletion may reach hazardous levels. If workers are to enter a vessel containing carbon, appropriate sampling and work procedures for potentially low oxygen spaces should be followed, including all applicable Federal and State requirements.

27-267-11/90



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