

## Activated Carbon Cloth

### DESCRIPTION

Activated Carbon Cloth (ACC), originally invented in the 1970's has since been developed by Chemviron Carbon Cloth Division for use in many filtration, adsorption and separation applications for use in industrial, medical and domestic markets

**ZORFLEX® ACC** has an extremely large surface area (1000-2000m<sup>2</sup>/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
- Protection of artefacts from tarnish and degradation
- Water and air purification
- Escape masks
- Low weight reduced resistance respirator canisters

### PROPERTIES

NOMINAL PROPERTIES	FM10	FM70	FM100
Surface Density, g/m <sup>2</sup>	120	160	220
Carbon tetrachloride activity, %w/w	55-70	55-70	55-70
Air permeability cm <sup>3</sup> /cm <sup>2</sup> /sec at 10mm	100	70	60
Thickness (mm)	0.5	0.6	1.0

CONSTRUCTION	
Construction FM10	1/1 plain weave
Construction FM70	Compound weave
Construction FM100	1/1 double weave

**PLEASE NOTE FIGURES ABOVE REPRESENT NOMINAL VALUES. CHEMVIRON CARBON RESERVES THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT PRIOR NOTICE.**



Zorflex 100% Activated Carbon Cloth in Woven Form.