

ACTIVATE CARBON FILTER SHEETS

Powdered activated carbons (PAC) play a critical role in a vast and diverse range of applications. Decolorization, deodorization or the removal of other trace impurities are amongst the most common applications where PAC are widely used in the pharmaceutical as well as in the food & beverage industries. Due to their unique adsorption characteristics, PAC are also used in biotechnological processing and the production of fine chemicals. In order to meet these various demands, there are a large number of activated carbons available, offering different levels of activation, molecular structure and purity levels. Using activated carbon in an immobilized form (e.g. in a depth filter sheet or lenticular module) offers significant benefits in handling, cleaning and time (cost savings), compared to using PAC. products bring out all the benefits of immobilized activated carbon versus PAC. Furthermore, the adsorption efficiency of immobilized activated carbon is higher than with an equivalent amount of bulk PAC.

Careful blending of filter aids and cellulose fibers with activated carbon yields sub-micronic filtration and adsorptive treatments concurrently. NCBM manufactures activated carbon-impregnated filter media in a range of removal ratings and configurations to fit most filter presses formats. This provides standardization of carbon treatment in addition to simplicity and ease of handling and operation.

Benefits

- More effective use of carbon (fewer kg of carbon required)
- Minimises potential for addition errors
- No need for use of loose activated carbon powder or granules
- No need for use of secondary filters and filter aids to remove activated carbon from the process fluid
- No messy filter cake
- Less time consuming than bulk powder usage
- Easier and cheaper disposal of spent filter materials
- It should be remembered that as with all activated carbon treatment systems, the quality and grade of activated carbon and contact time affects the adsorption capacity.
- The sheet life depends on the amount of colour / odour / off-taste / chlorine to be removed and the dwell time of the liquid within the sheet.
- Carbon treatment applications include:
- De-colourisation of blood products, glucose solutions, antibiotics, solvents, sugar syrups, cosmetics, silicone oils, electroplating chemicals, alcoholic beverages; de-odourisation of fruit juices, beverages; de-chlorination of water; off-tastes removal in food and beverages. Reduction of colour, odour and endotoxin levels in API processes.

Applications

- Higher efficiency over loose carbon
- High adsorption rates

